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Shell Oil Company Opens Another New And Important Oil Pool Southwest of Bakersfield

Ground a dozen miles southwest of Bakersfield again has rewarded Shell Oil Company with an oil discovery of consequential importance.

The new oil was found by KCL No. 83-8 on Section 8-30s-26e in the McClung sector and about two miles east of Shell's Posuncula No. 1 discovery. Location also was slightly more than a quarter-mile north and east of the East Strand field.

Drilled to a total depth of 10,017 feet by Thomas P. Pike Drilling Company on contract, the well started off from selected intervals in the Upper and Lower Stevens zone at a rate between 450 and 500 barrels daily.

West by about two miles, Shell three months ago completed Posuncula No. 1 for a first day's production of 1810 barrels of oil and 1,380,000 cubic feet of gas.

The initial output was by way of a 28/64-inch bean with .3 per cent and oil testing 33.5 gravity. Tapped was the Rio Bravo-Vedder zone at an interval of 12,360 to 12,410 feet.

Drilling with this deep test did not quit until basement had been reached at 14,224 feet.

An indicated potential zone of production in the Lower Stevens zone was not taken in by the Posuncula project.

Shell, which has several thousand acres under lease from Kern County Land Company in this part of central San Joaquin Valley, has set in motion its Posuncula No. 131-12 on Section 12-30s-25e. This is the same section on which Shell-Ohio KCLA No. 73X-12 is working.

Mount Poso

Northeast of Bakersfield in the Mount Poso field, Shell is busy on a program of drilling jobs. They are located in the sector where Vedder production was first brought to light at Mount Poso and prompted by completion last July of the company's Vedder No. 47 on Section 9-27s-28e for 445 barrels of oil a day from a total depth of 1840 feet. The Upper Vedder was topped at 1578 feet.

The Mount Poso program includes at this time, Vedder No. 48 and No. 49 and Vedder Rall No. 27 and No. 29, and all on Section 9. Vedder Rall No. 28 was finaled several months ago at 1813 feet in the Vedder formation for only a few barrels of oil.

A glance at the map indicated that Vedder No. 47 is no more than a half-mile from the original discovery well.

Simmler Test

In the preliminary stages is Shell's Stauffer No. 41-24 wildcat on Section 24-29s-17e near Simmler on the Carrizo Plains of San Luis Obispo County.

The test is of more than ordinary interest because of what has happened to previous wildcat wells in the general area.

During past years there has been no dearth of exploratory holes taken down in the Carrizo Plains and while many found showings when tested failed to give up commercially due to tight formations.

Shell is actively represented in the Vallecitos discovery area of San Benito by operations on a farmout from the Artnell Company. In the South Cuyama area in Santa Barbara County, the company's Heller No. 22-23 on Section 23-9n-26w has reached the spudding-in stage.

In passing it is of interest to note that deep drilling in many San Joaquin Valley sectors is the result of clauses in original leases made by Kern County Land Company with operating organizations, which called for deep tests to the Eocene formation in a stipulated time or the surrender of the deeper rights.

Nevada Success

Elsewhere than in California Shell also continues to score with successes in the field.

The latest event in this category was completion of a new well in the Railroad Valley area of Nevada —Eagle Springs Unit No. 15-35, some 3000 feet southwest of Eagle Springs No. 1, which gave the state its first oil production southwest of Ely by 75 miles.

Drilled to 8050 feet and plugged back to 7360 feet, the new and third well in the field came in for more than 400 barrels of oil daily.

Shell also is moving ahead in the sprawling Williston Basin, exemplified at the moment by start of a 450-mile pipeline to carry crude oil out of the area.

The Butte Pipe Line Company in

which Shell holds a majority interest, has been formed to own the new line, which Shell Pipe Line Company as agent, will construct and operate.

Although of great importance, the new line represents just one phase of Shell's long-term plans for expanding operations in the Basin. The new 10-12-16-inch line will run south from Polar in eastern Montana to connect with two existing common carriers—the Platte Pipe Line and the Western Pipe Line. This brace of trunk lines operates from Wyoming to refineries at Chicago and Wood River, Illinois.

Shell Pipe Line at present owns and operates a 35-mile 12-inch line from the Cabin Creek field to Glendive in eastern Montana. This line now gathers the production from several Shell locations in eastern Montana and delivers it to near Glendive where it is loaded on railway tank cars. The Cabin Creek-Glendive line will be sold to the Butte Pipe Line Company and form a link of the Butte carrier.

Returning to California, Shell was one of the first to drill a well in a heavily populated city area without offering any disturbance to residents with its 7924-foot test on Gilmore Island in 1943. It was dry.

Field developments of more than a decade ago, include Long Beach discovery in June of 1921, Raisin City discovery in June of 1941, Ten Section Stevens find in June of 1936, opening of Rindge area at Inglewood in July of 1925, and numerous others.

Fossils Collection

Recognizing the importance of thoroughly training new oil scientists, Shell recently presented the University of California for the university's young campus at Riverside a great quantity of invertebrate fossils collected by company geologists during the past 30 years.

Valued at more than $25,000, the shells in the collection range from 1,000,000 to 140,000,000 years old. The fossil accumulation will be used by the university's geology department to train future geologists. Use of the collection will be directed by Dr. Michael A. Murphy, instructor.

In addition to California, Shell holds rights on proved and undeveloped oil lands in Colorado, Illinois, Kansas, Louisiana, Montana, New Mexico, Nebraska, Oklahoma, Texas, Wyoming, North and South Dakota, Canada and Alaska.

Sam F. Bowlby is vice president of the company and in charge of Pacific Coast production and exploration activities.

Progress in Side-Wall Coring

Improvements in Tools Coupled With Modern Logging Methods Increase Efficiency and Scope of Operation

(By George C. Hepburn, Jr.* and Denis M. Murphy, Schlumberger Well Surveying Corporation.)**

Keeping pace with the development of electrical logging methods, the use of electrically operated percussion side-wall coring devices has grown tremendously since their introduction in 1936. Used successfully from the start in relatively unconsolidated formations to check zones of interest appearing on the electrical log, they have become one of the most efficient and reliable sources of reservoir information. Over one million side-wall cores have contributed to the discovery of a great many new producing fields and formations.

In operation the side-wall coring guns use an explosive charge to drive a hollow cylindrical bullet into the formation. The bullets and contained cores are recovered by retrieving cables (or wires) connecting each bullet to the body of the tool. Fired in sequence upward from the bottom of the gun, each core-bearing bullet hangs downward at the end of its retrieving cable without interfering with the next shot. Each shot is positioned exactly by observation of a Spontaneous Potential (S.P.) recording meter which is checked against the S.P. curve of the electrical log.

Growth of the electrical side-wall coring process paralleled the increased acceptance of electrical logging. As it was proven that electrical logs could identify lithological changes and offer a qualitative interpretation of fluid content, much hit and miss mechanical coring was discarded in favor of the cheaper and faster side-wall coring coupled with the electrical log. Improvements in design were at first concerned primarily with increasing the number of cores which could be taken on one trip in the hole. Later changes brought about improved design of chambers with heavier loads, resulting in larger diameter cores. A number of gun types have been developed of varied diameters and number of shots. Guns are now available which take up to 30 cores on each trip in the hole, with diameters exceeding 1 inch and length up to 2¼".

Hard Formations Cored

Application of the method was until recently largely restricted to relatively unconsolidated formations. First attempts to adjust load and bullet types to hard formations met with poor success. Recently these difficulties in loading and bullet design have been overcome and entire new areas of application have been opened. Highly compacted zones in today's deep drilling are now cored easily. Spreading geographically too, the method has been applied in consolidated cemented formations in all major producing areas from Illinois to California and from Canada to the Rio Grande Valley. Generally speaking, if a formation is permeable enough to produce it can now be cored by the percussion side-wall coring process.

Selection of Coring Points

Contrary to what might have been expected, modern logging tech-

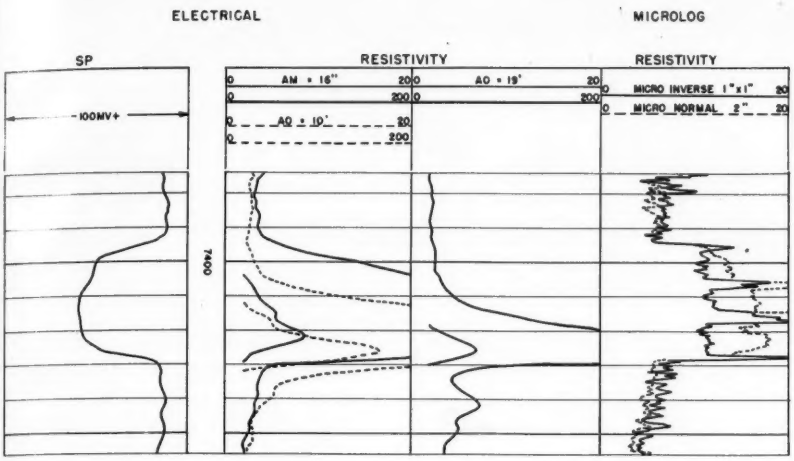


Fig. 1

niques and improved quantitative interpretation of these logs did not diminish the need for side-wall coring. Improved technique and interpretation have increased side-wall coring application by showing that production may sometimes be obtained in formation types previously passed up on the log. The more exact information obtained from logging has eliminated useless coring of zones recognized as water bearing or too tight to produce.

It has become standard practice to use both the electrical log and the MicroLog in the selection of proper coring points in a well. The electrical log indicates the possible oil, gas, or water producing zones and accurately controls placement of shots. The MicroLog is used to precisely identify permeable intervals in the zone which is to be cored. In logging of hard formations, such as limestones, the S.P. log generally detects the presence of permeable beds but does not accurately define their boundaries, especially when they are thin. The MicroLog is the solution to this problem, differentiating between permeable and impermeable beds of but a few inches in thickness. In recently devised tools a caliper curve is recorded simultaneously with the MicroLog; this, too, has shown to be an aid in selecting coring points through its confirmation of MicroLog indication of permeable zones.

In soft formation areas the ability of the MicroLog to define thin shale streaks in sand and shale series produces an accurate sand count. As an adjunct to the side-wall coring it prevents inadvertent coring of thin shale streaks that are not distinguishable on the S.P. curve. Two examples of the use of side-wall coring coupled with modern logging are shown in Figs. 1 and 2 which illustrate the efficiency obtained through use of the MicroLog as an aid in determining correct coring points.

Figure 1 shows a series of four impermeable hard streaks in a thick and otherwise fairly homogeneous sand. The fact that these hard streaks are present is not at all obvious from the electrical log. Cores were taken throughout the formation including the hard streaks. Permeabilities in excess of 300 millidarcies were the rule through the three intervals showing lower MicroLog readings. Permeabilities on the order of 5 millidarcies were found in the four hard streaks indicated by the MicroLog, the laboratory reporting that these were probably too tight to produce a significant amount of fluid.

Figure 2 demonstrates how cores may be efficiently taken in a series of sands and shales, many of which are two feet and less in thickness. Coring points selected from the MicroLog resulted in recovery of excellent cores. Without the MicroLog to accurately determine the permeable sections not clearly seen on the S.P. curve it is likely that half of the shots might have been placed in the impermeable zones.

Economy and Efficiency Promoted

Side-wall coring presents concrete advantages over coring with drill pipe.

Great savings of rig time are effected. The speed of the operation has been increased to a point at which 30 cores can be taken from a depth of 10,000 feet in two hours, or less than one half the time required for a round trip with drill pipe. The necessity of watching carefully for coring breaks and the drilling time loss while pumping cuttings from bottom are eliminated.

Cores are sufficiently large for complete physical analysis. Many

(Continued on Page 31)

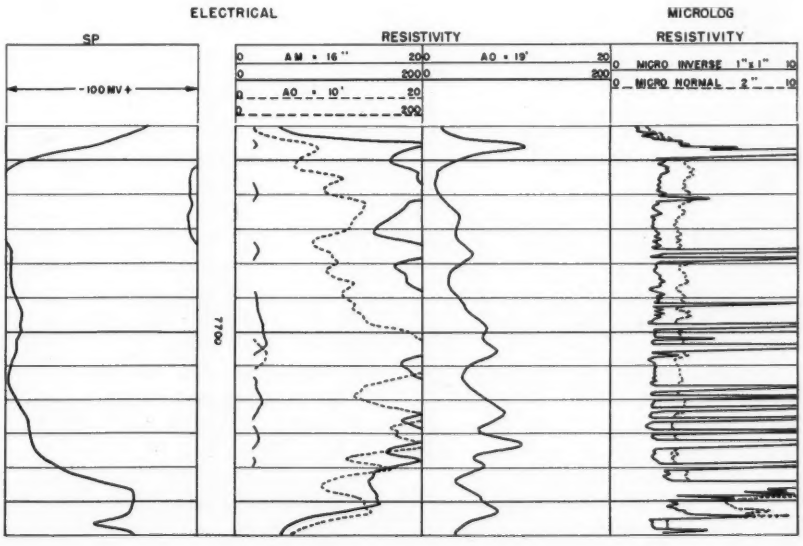
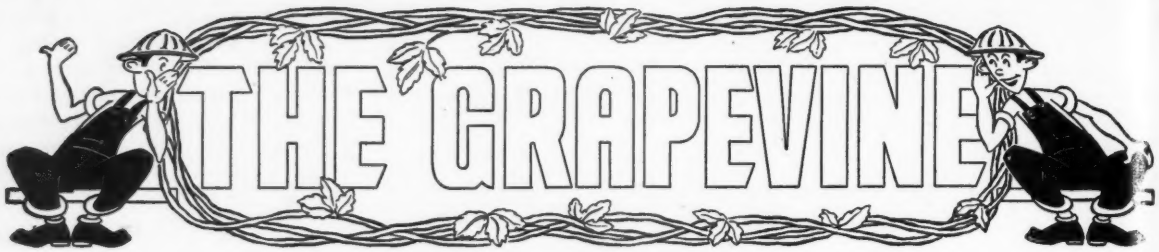


Fig. 2



By RICHARD SNEDDON

News from Calgary

We have an interesting letter from Al Mitchem, originator of the "don't just sit there" phrase now so commonly used by despondent domino players. It comes from the Palliser Hotel in Calgary and informs us that Al is fully expecting to be moved back to Los Angeles permanently about 1970 and would we kindly keep the Petroleum Club in good shape until he returns. We shall endeavor to do just that because even if it is a long way off we are looking forward eagerly to Al's home coming. The quality of the tile tossing has suffered severely by his absence and we are anxious to get it back to the high plane at which we used to win occasionally. Incidentally, it is many moons since we heard from Norm Rousselot, Dub Russell, and several other high echelon Seaboard people who were wont to grace the Petroleum Club with their presence, not too long ago. We are hoping they will decide to drill a well down thisaway, or enter into some sort of negotiation that will require their visiting the City of Angels soon.

Another Big Fish Yarn

On a recent cruise, the **Paisano,** with Skipper Carl Long, the Crestmont Oil Company magnate, at the wheel, practically stripped the Pacific Ocean of albacore. Participating in the process were Mrs. Long, and the Andy Andersons of The Oil Tool Corporation, Long Beach. Down San Diego way, they landed forty pretty husky looking specimens on the first day and on the second day, they gathered in eleven more. All of which has the canneries humming again like sawmills. Andy is carrying a set of pictures around with him just in case some skeptic challenges the success of his adventure. We looked them over pretty carefully and notice that the albacores are all pop-eyed with astonishment at the way they have been treated. By the way, the Crestmont Company just recently moved from the Subway Terminal Building out into our neighborhood at Burbank, so first time we feel the need of an albacore steak, we'll find some sort of pretext for dropping by.

Football Gathering Planned

The Petroleum Club is planning a big pre-football-season rally for the evening of September 14 and it is expected that this convocation will be responsible for the greatest assembly of old grads in college history. Last year there were alumni and alumnae from almost every university between Maine and Santa Monica. There were people at this collegiate whingding with more degrees than a Bakersfield summer and there were even some graduates from old HK (the school of hard knocks). We spotted a fair rash of red blazers from Harvard and the odd disciple of Old Eli, and, of course, the western campuses were liberally represented. Needless to say, we personally sported the colors of Glasgow Tech and missed no opportunity to burr out the stirring fight song of our alma mater. Maybe you'd like to hear it—it goes like this:

McBagpipes and McPhersons,
McMashies and McGees.
McBains, McBeths, McDonalds,
McCallums and McPhees.
We'll charge the opposition,
aye, and charge them high,
by heck!
And rake in lots of bawbees for
the tills of Glasgow Tech.
So drink a glass of barley bree
And toss off all pretense
And give two cheers instead of three
To keep down the expense.
Glasgow Tech! Glasgow Tech!
Hoots man!

The Punters Start Out

The recent Petroleum Club Del Mar Day party brought out one of the most proficient groups of punters ever to converge on a southern track. Evidence of this expertness is to be found in the fact that three people, Ruby (Mrs. O.M.) Working, Ernie Pyles, and Ches Braly, started the day off right by winning the daily double. It paid something in excess of $450 for a $2 investment. Some 180 members and guests boarded the special Santa Fe train and spent a wonderful day tormenting the pari-mutuel machines. An interesting feature of the program was the Petroleum Club Handicap which was won by Jet Stream with Valenzuela up. At the conclusion of the race, the winner was presented a floral horeshoe by A. C. Rubel, president of the Petroleum Club. Also in the winners' circle for the ceremony were Mrs. A. C. Rubel and Mr. & Mrs. Jim Kelley besides sundry other celebrities whom we failed to recognize. No estimate has been computed of the total profit from this whingding but it must have been stupendous.

There They Go!

Among those in attendance were the Bankline Sam Pattersons, one of the oil industry's best looking tandems; the Elmer Deckers, weight indicator magnates from Long Beach, Elmer in a wide brimmed straw that might be used effectively for midget racing; the Bob Cooks, the Great Lakes Carbon people, dishing out betting

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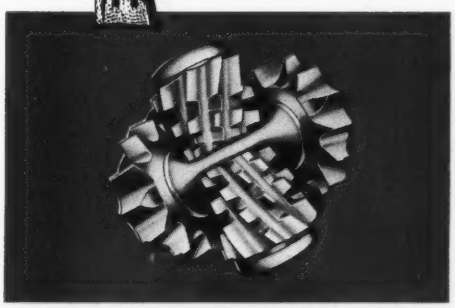

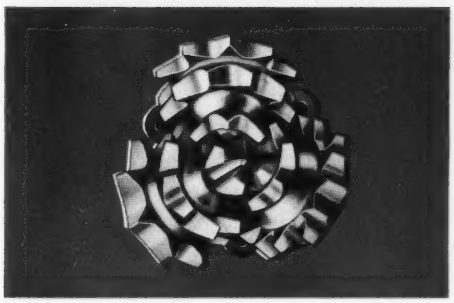

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ADA'S NO. 1 CITIZEN

Olen Lane, vice president and western regional manager of Continental Oil Company, is a pleasant mannered, nice appearing chap, who first saw the light in Ada, Oklahoma. He attended Oklahoma A & M, and Teachers College at Edmond, and then did a stint for Uncle Sam in the first World War, from which he emerged with a captaincy. Upon his return he joined the Marland Oil Company at Ponca City as lease man; in 1923 he was moved to California as superintendent of lands; and shortly thereafter was named vice president of the Marland Company of California. When Marland changed its name to Continental Oil Company in 1928, Olen was appointed manager of exploration, and by 1950 had become assistant regional manager. Later he succeeded Charlie Allen as regional manager, and in August 1953 was elevated to a vice presidency.

Olen has had an interesting career in oil. It was he who arranged with Pat Long the farmout from Marland on which Milham Exploration Company drilled the Kettleman Hills discovery well in 1928. He also was responsible for the acquisition of some very profitable acreage in San Maguelito along about 1930, just after the field was brought in. He is a past

member of the Wildcat Committee of Western Oil & Gas Association, is currently vice president of the Petroleum Club of Los Angeles, and is well and favorably known all over the Pacific Coast.

For recreation, Olen occasionally goes out on a fishing or hunting expedition and really enjoys it but he is most famous around these parts for his intimate knowledge of the more speculative pastimes. He is a noontime domino or gin rummy player and no one plays the chancy games with more skill or care. Whether he is picking a site for a wildcat well, selecting the proper nose at Santa Anita on which to lay his two dollars, or simply rummaging in the boneyard for a counting domino, he never does it carelessly. He carries on in all such enterprises as if they involved exact mathematical processes and he is a pretty consistent winner.

He is by no means slow but he just doesn't move until he is sure in his own mind that the move is logical and justified. He is a student of the law of probabilities and just figures that in any sort of deal incorporating a lot of unknowns, it is a paying idea to become thoroughly acquainted with the known factors.

Besides having the attributes that one ordinarily expects to find in an executive, Olen has the virtue of friendliness, has an excellent sense of humor, and, indeed, has most of the supplementary qualities that make for popularity, all of which makes him a nice person to know.

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money with a lavish hand; the Fred Behrens, very high octane folk from the Richfield camp; the Ward Blodgets, the consultants, and if everybody had been born with a singing voice like Ward, the invention of sound amplification equipment would have been superfluous; the Paul Broxons, Western Gulf barristers, he a top gin rummy authority; the Drillex Dave Carnahans, another popular and personable pair; the UOP Ed Lemmens, with their guests, the Henry "Jack Daniels Syndicate" Paulsens, noted Banklingers; Cotton Holder, the Loffland Brothers Valley superintendent, and a famed expounder of interesting folklore; and Archie Fraser, the independent Caledonian operator, and his lovely lady, with a flock of guests, all looking feverishly for "good things."

Arriba Expert Attends

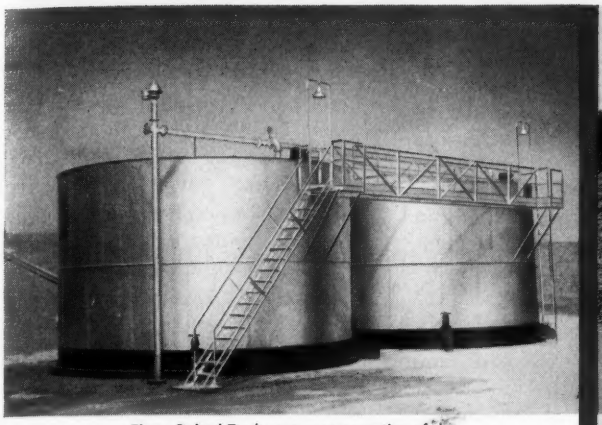
We glimpsed Paul Ottosen, the Signal Oil & Gas Company attorney, who is without question the best arriba player on the west coast; the Leonard Andrews, from the highest stratum of local butane society; Hubert Ferry, our old buddy from the Lands & Leasing department of Union Oil Company, now way up in the executive ranks; the George Tylers, he the Jimmy Doolittle of the DuPont Company, she a very gracious lady; Pert Sargent, the genial Sargent Engineering sales executive, a lad with a fine physique, an entertaining sense of humor, and a mighty attractive girl friend, Polly Prentiss; the Joe Jensens of Tide Water Associated fame, who tried everything from cajolery to calculus but couldn't make the horses behave; the Cope Johnstons and a noted Houstonian by the name of Sokolosky, all on their first trip with the Petroleum Club people; the tall, handsome John Biegel of Fluor fame, with his lady. John is a lad with a rare faculty for picking out a counting rock; and the Reg Keans, another pretty imposing couple, Reg a sharpie at any kind of speculative enterprise but somehow unable to convince the horses of that fact.

Coon Hunter Tries Luck

The Ches Bralys were there, too, Ches with a miniature camera that wasn't any bigger than a mascara box; and we exchanged greetings with the Lawrence Wolfes and the Lee Spencers, popular members of the 7600. Then there were the Hancock Company Bernie Dressers, he probably the best dressed dresser in these parts; Rudy Schweitzer, the Southwest Exploration Company chap who sends us a 1000 lb. steer occasionally; Jim Hickey, pleasant mannered representative of a fine pioneer family; the J. C. "Bud" Russells, he a Republic Supply Company top hand and a juryman with a neat flair for the administration of justice; and Ed Trout, executive of the Lufkin enterprises, and without question the best coon hunter at the meeting. Unfortunately, however, they don't run coons at Del Mar. With Ed was Clayton Rose of the Goertz-Rose combine, a past master in the art of building sets and sequences.

Vice Presidential Standin

We had quite a dissertation with Frank Leonis, the Security Engineering chap, about high finance but we didn't have enough fifty-cent pieces to work the things out to a satisfactory conclusion. Being serious for a minute, we think that what Frank was trying to demonstrate was that if you base your profit on the selling price you can't gain or lose more than 100%. Frank and Mrs. Leonis were as usual liberal entertainers. So were By and Cammie Landis, the Web Wilson Oil Tool people, who cheered us no end when our choices ran the wrong way. We failed dismally to



These Bolted Tanks are representative of the line of Bolted Tanks, Wash Tanks, and Field-Welded Tanks erected by American field crews.

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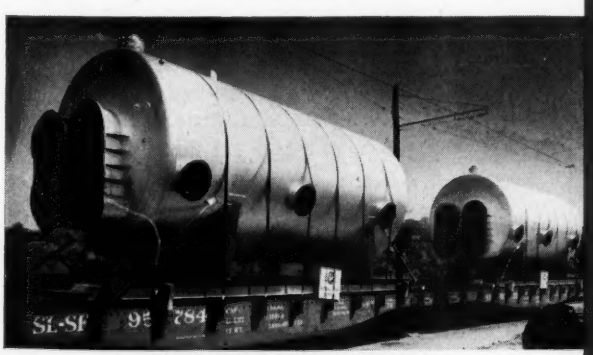
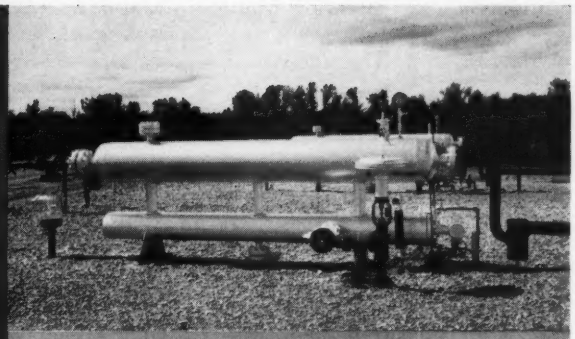
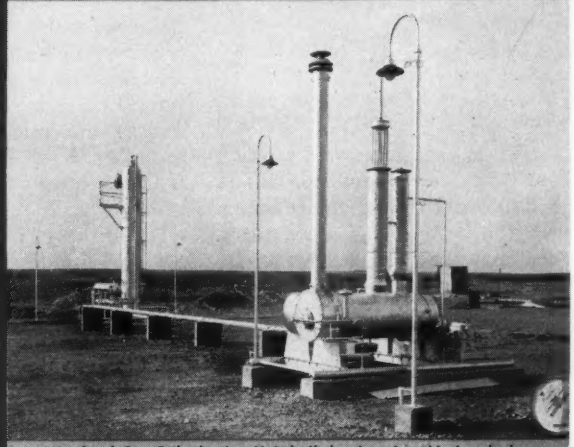


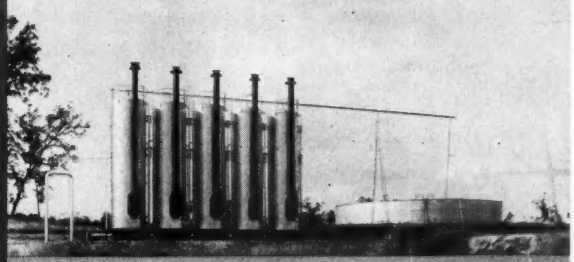
Two 4 million BTU direct-fired Heaters. Direct or Indirect Heaters are available, horizontal or vertical—from 18" up to 12' diameter.



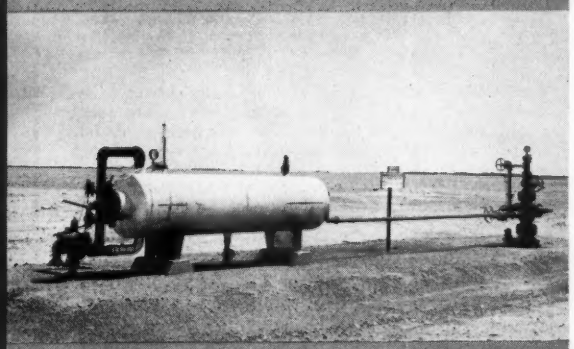
Horizontal double-barrelled Separator. American-National Separators have working pressures from 100 to 6000 PSI. Capacities to 435 MMSCFD of gas, and 30,000 BBLS per day of oil.



A glycol Gas Dehydration Unit built by American-National, the originators of Package Plants—both dry-bed and glycol types. Package Refrigeration Plants—mechanical or natural—are also designed and fabricated.



A battery of Type ICP American-National Emulsion Treaters. Over 15,000 of these Treaters—vertical and horizontal—are now operating in oil fields.



A Monotube Oil and Gas Separator, also available as a water-knockout or oil, gas and water Separator. Wide range of pressures and capacities.

get Cammie an interview with Johnny Longden but there will come another day. The Leon Wardles of Globe Oil Tools Company hosted a large party in nice style and we spotted among them Tom Ashe who was once mistaken for Richard Nixon, vice president of the United States.

The Science of Selection

The Dwight Vedders used their form sheets to good advantage and made the track officials pretty mad by carting their money back home again intact. Ernie Pyles and his good lady were fortunate enough to catch the daily double and Ernie is now prepared to give lectures, for a reasonable fee of course, on the science of selection. Don't know how the Charlie Eastmans did in their bout with the bangtails but we noticed that they left the train at Los Angeles with looks of perfect contentment so we assume that if they suffered at all, it was from swollen wallets. The Emsco Tiny Bushes also wore that satisfied look and hope it was occasioned by the same circumstance. With the Cardwell Lee Lairds we were able to lapse briefly into our native tongue but two guests across the aisle thought, when we loosed a barrage of r's, that the train was under machine gun fire, so we had to stop and get back to broken American.

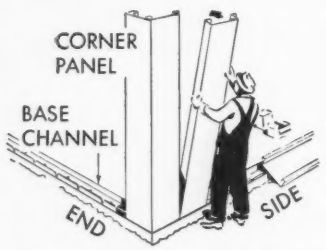
Looking Backward

Had a chat with the Dominguez Oilfields Ed Leabows and reminisced no end about Dub Russell, Leon Barrett, Roy Hornidge, Dave Kilgour, and a stash of other early members of Petroleum Accountants Society with whom we used to have fun 20 years ago. Had a rough time finding the names of the Ken Corporation Neal Thompsons on the manifest but finally did and let them go aboard. Would have given them a "good thing" later to make amends for our blunder but our good thing got stuck in the starting gate anyway so it's lucky we couldn't find them a second time. Oh well, a horse like that will make dandy glue!

Leovy Barely Makes It

Monte Lindmoe, executive veep of the Southwest Welding Company, was in excellent voice but the pari-mutuels were not influenced. Clarence Phillips, the Emsco sales biggie looked cheerful enough to have bagged a few winners but we don't know for sure. The Sargent Engineering Al Pruetts, a right cute little couple, also appeared to be having fun. And so did the Verdi Boyers of the same august institution. Jack McKay, the ubiquitous Fluorite, lost some valuable papers but didn't seem to be unnecessarily disturbed, and Jim Leovy, the Western Gulf legal chap, chased the train all the way to Santa Ana and just barely managed to scramble in the caboose as we puffed out of the station. Lost track of Glenn Camblin and Clary Morris, the Tretolite higher-ups, after saying hello on the train but learned meantime that they stashed away enough kale in the first race to carry

Armco Steel Buildings GO UP FAST



Armco Buildings are available in clear-span widths up to 40 feet.

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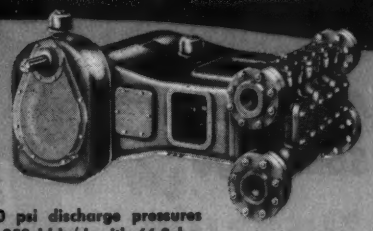

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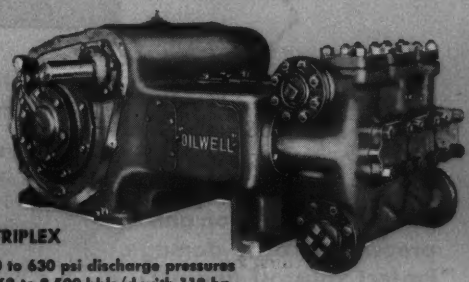
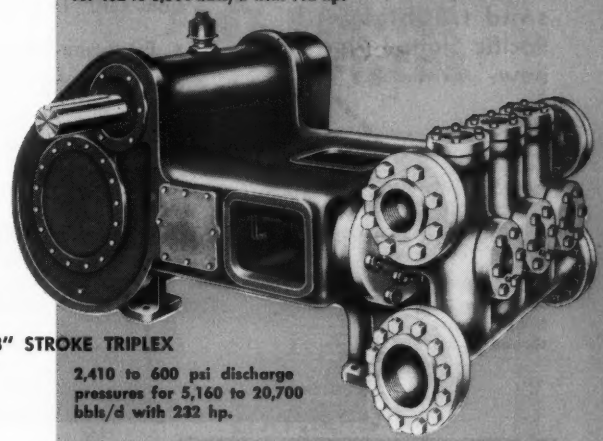


6" STROKE TRIPLEX
5,650 to 630 psi discharge pressures for 462 to 8,500 bbls/d with 112 hp.



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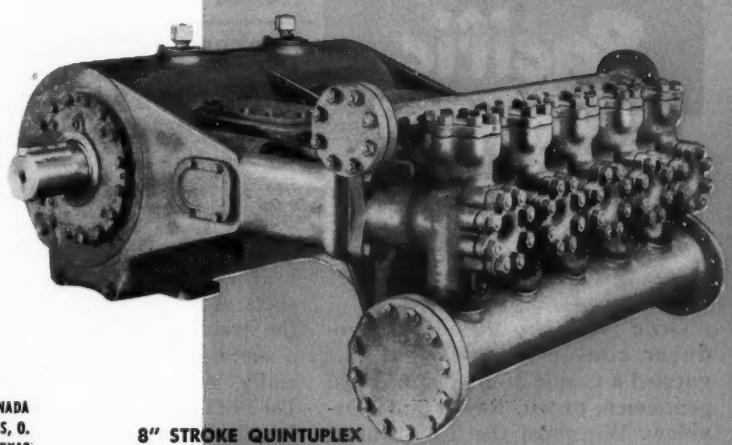
... representing the most complete line of horizontal power pumps in the industry ... provides a wide range of plunger diameters to best suit your operating requirements with minimum input horsepower. A choice of material for fluid-ends, plungers and valve service is available.



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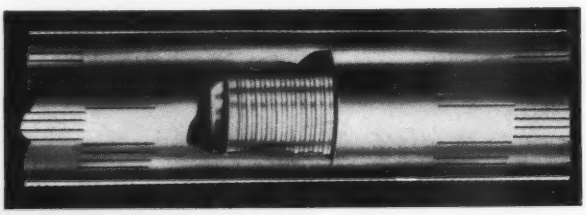
ASK about Pacific's fast, accurate threading service!



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them comfortably through the rest of the day.

Also Among Those Present

Orrie Hedges, the lawyer-producer couldn't be present but guested a couple of interesting legal gentlemen, to wit, Ray & John Davidow. We noted the Ted Drakes, too, down front digging deeply into the equine statistics. Bob Cole of the I. V. Cole Petroleum Company had seven winners, we hear, and would have been on the eighth too if he had had any money left. Jim Durkee, the GP Comptroller, was in excellent form and organized all sorts of entertaining enterprises on the train. The Dan Gillilands had a successful day socially and financially, and the same goes for the Du Pont Bill Gests, at least socially. By the way, Don Goodell, another Du Ponter, helped us personally to select all eight losers. Olen Lane, the Petroleum Club vice president, recovered his equilibrium on the last race and found the ride home much more enjoyable. Also saw the Bill Kirk Jrs a couple of times but have no idea how they fared. And the Milton Lewises, that is, the Ralph Parson Lewises, were there searching avidly for the golden fleece. Others who added luster to an already lustrous gathering were the Humble Oil & Refining J. K. Bridges, the Mel Locketts with their guests, the recently repatriated Dudley Towers; and the World Supply Company Harold Jordans.

Another Floral Horseshoe

The entire outing was a completely relaxing and diverting affair, for which the credit again goes to Jim Kelley and his aides. Incidentally, we were just remarking the other day that Peggy Kelley is by all means one of the most remarkable gals in this here town. How she can go through a hot summer day as she did at Del Mar and remain so completely beautiful and unruffled to the last minute, is a secret that some of us girls would give our eye teeth to know. Anyway, the Del Mar Day outing was an outstanding success so despite our nationality and what happened to us this time, we shall certainly be aboard come train time next year.

Here and There

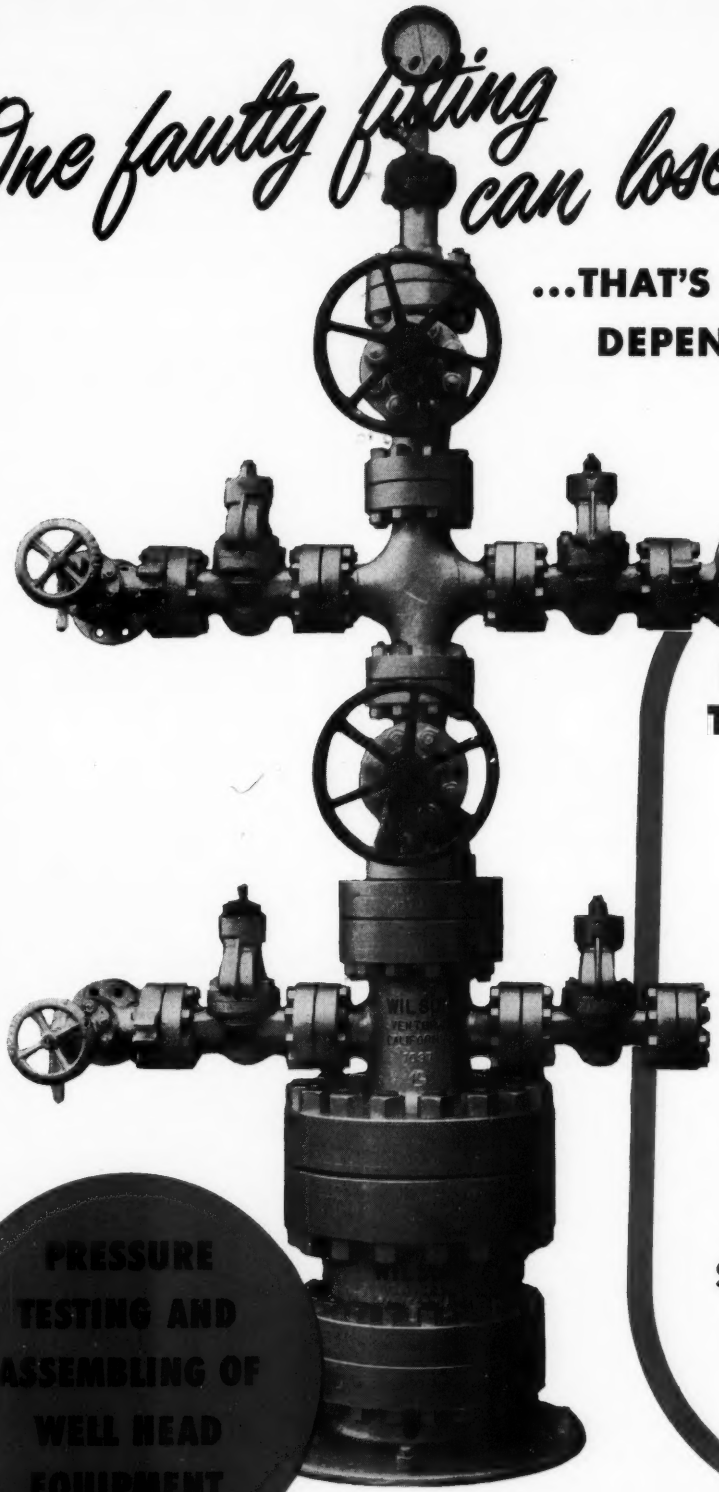
By way of last minute news, we are sorry to report the recent death of Marie Van Wingen, wife of Nick. She had been in poor health for some time. We note also the passing of Wirt Neal Barrett, pioneer Bakersfield oil man, who started work with Standard Oil Company in 1901. His last work was with the Superior Oil Company. He died at the age of 75. Petroleum Production Pioneers will have their fall barbecue at the GP picnic grounds, Lebec, on Saturday, September 10. And congratulations to Bill Wiley, the McCullough Tool Company chap, who has just had another boost up the ladder of success.

"I noticed that your daughter didn't get home until 3 o'clock this morning," sniffed the gossip. My daughter was in by 11.30."

"I know," was the cool reply, "but you see, my daughter walked home."

"One faulty fitting can lose the well

...THAT'S WHY WE DEPEND ON WILSON!"



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Personalities IN THE NEWS

Bendix-Pacific Makes Two New Appointments

Announcement of the appointments of David H. Brown as Assistant General Manager and Donald W. Tait as Supervisor of Advertising and Public Relations was made today by R. C. Fuller, General Manager of Pacific Division, Bendix Aviation Corporation.

D. H. Brown

Since 1947 Mr. Brown's title has been Works Manager of the North Hollywood concern. He has been a Bendix employee since 1938 when he joined the company as a draftsman.

Mr. Brown studied Mechanical Engineering at Rhode Island State College and later attended Curtiss-Wright Technical Institute, now known as Cal-Aero.

A native of Wellesley, Massachussetts, he and his wife and four sons now reside in Van Nuys, California.

Mr. Tait, before joining Bendix, held positions as Manager of Advertising and Sales Promotion at Raytheon Manufacturing Co. in Waltham, Massachusetts, and as

D. W. Tait

Advertising Manager for Great Lakes Carbon Corp. in New York City. He was also for many years a member of the advertising staff of Chase Brass & Copper Co. in Waterbury, Connecticut.

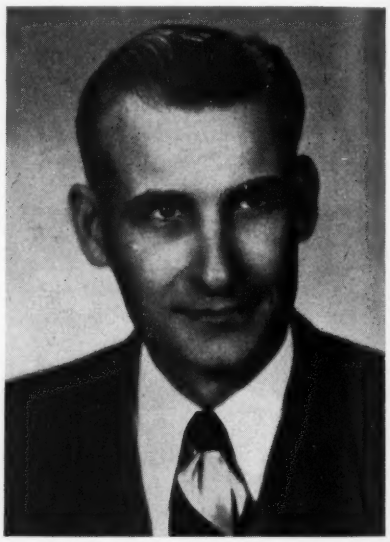
A native of Springfield, Massachusetts, Mr. Tait is a graduate of Yale University and did graduate work at Boston University.

Ray Gleason, editor of the California Newspaper Publishers Association magazine for the past five years has joined the public relations staff of the Western Oil and Gas Association in Los Angeles. Before his association with the CNPA, Gleason was a reporter on the Red Bluff Daily News.

David Rand, R. W. Rovee, W. W. Alving, James Radoumis, and W. R. Winton are officials of the Kern County Oil Information Committee in charge of the Kern County Board of Trade petroleum exhibit at the California State Fair in Sacramento, September 1-11.

Ellsworth Advances At Fluor

Engineering and construction operations of The Fluor Corporation, Ltd., Los Angeles, are being combined into one division in a major organizational change which will become effective November 1, J. R. Fluor, executive vice-president, announced recently.



M. A. Ellsworth

M. A. Ellsworth will head the new engineering and construction division as vice-president and general manager. He has served as vice-president in charge of the sales division since November, 1952.

"This realignment of engineering and construction activities should further improve coordination of the two functions, as well as generally increase Fluor's operating efficiency," Fluor said.

Reporting to Ellsworth will be J. G. Marshall, vice-president, general engineering; Ernest Moncrief, vice-president, Mid-Continent division; Lee Van Horn, vice-president, process engineering and development; W. P. Downey, vice-president, construction; and J. P. Kneubuhl, vice-

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FRICTIONAL CHARACTERISTICS	Superior for Pump Usage	Superior for Pump Usage	Lubrication Problems
TOUGHNESS	Shatters Easily	Withstands Hard Blow	Varied Characteristics
BURSTING STRENGTH	Good	Excellent	Excellent
ABRASIVE RESISTANCE	Fair	Superior	Good

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president, engineering and construction sales. Kneubuhl is presently vice-president, Eastern area sales.

Ellsworth joined Fluor's sales staff at Tulsa, Okla., in 1940. Two years later he became a sales engineer and was named Tulsa district manager in 1944. Raised in Ashland, Kans., he was graduated from Oklahoma A & M in 1934 with a bachelor of science degree in industrial engineering.

Bob Galeski, Honolulu Oil Corporation geologist at Bakersfield for the past several years, has been elevated to Canadian division seismologist at Honolulu's new offices at Calgary. The head of the company Canadian division is Paul McGovney, formerly district geologist at Bakersfield and subsequently in charge of Honolulu's office in Billings, Montana.

Carl J. Manderscheid, 68, once an employee of Union Oil Company, died at his San Luis Obispo residence. He was a lifelong resident of San Luis Obispo County.

Pictured are Mr. and Mrs. Frank LeBus, Jr. of Longview, Texas, aboard the S.S. United States, Flagship of the United States line, just prior to their sailing for Europe. They sailed from New York Harbor August 5th, on a business trip which includes France, Germany, Holland and England. Mr. LeBus will set up distributors for products manufactured and sold by LeBus Rotary Tool Works and LeBus International Engineers, Ltd., of Longview, Texas. Plans now call for their return September 13th aboard the S.S. United States.

International guests at the August 10th meeting of the Los Angeles Chapter of Nomads: Left to right (standing) A. Maclay Gardner of Lane-Wells Company from Brazil; Theo. S. Kopren of Santa Fe Drilling Company from Arabia; C. F. Davidson of Aramco from Saudi Arabia. (Seated) A. J. Davis of B. P. M. from Borneo; John Sligh of D. & E. from Brazil; C. B. Welch of Santa Fe Drilling Company from Kuwait; C. M. Williams of D. & E. from Brazil.

Peak Advances at Kaiser

Vern F. Peak was appointed director of personnel services at the Kaiser Steel plant, Fontana, California, it was announced by G. E. Baisley, manager of industrial relations.

Peak, a resident of Pomona, has been with the company since last year and was coordinator of employee activities at the steel plant. In his new post, Peak will have charge of employment, personnel records, and will continue to head employee activities.

A native of Eau Claire, Wisconsin, and a graduate of the University of Wisconsin, Peak was for three years supervisor of industrial relations at the E. I. Dupont Kankakee Ordnance Works, Joliet, Illinois. Previously he had been associated with the Bucyrus Erie Company, Milwaukee, and the city school system of Milwaukee as a director of recreational and other activities.

During World War II he saw three years of action in the Mediterranean area as lieutenant in the P.T. boat service.

He came to Kaiser Steel following his work as manager of personnel and industrial relations for the Century Metalcraft Corporation, Los Angeles, and later worked in sales engineering.

Married, he resides in Pomona with his wife, Genie, and their nine year old son, Joe.

Wilson K. Minor of San Francisco, assistant comptroller of Standard Oil Company of California, has been named a trustee of Controllership Foundation, Inc., research arm of the Controllers Institute of America. Minor, a regional vice president and national director of the parent organization, headed its San Francisco control in 1950-1951.

Following major surgery at Hoag Memorial Hospital, Newport Beach, Oil Man Bob Davis is up and around at his Balboa Bay apartment, where he spends most of the summertime. His main place of abode is in Beverly Hills.

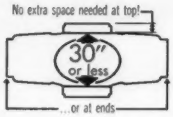
George J. Murray Jr., Tide Water Associated Oil Company public relations director at Los Angeles, is currently on a business tour of California, which probably will terminate early in October.

Select Cellar Control Gates by VALUE and you'll buy SHAFFER!

When you buy cellar control gates, compare the important *extra* values you get in Shaffer equipment — space-saving compactness, time-saving convenience, maintenance-saving simplicity and ruggedness — and you'll see why so many operators agree that Shaffer is far and away the industry's top value in blowout protection.

Extra Value #1

SPACE-SAVING COMPACTNESS!



Equipment that is bulky and cumbersome exacts a high toll in greater rig costs, deeper cellar requirements, clumsy hook-ups. Shaffer Hydraulic Gates require a minimum of space — in height, width and length . . . as little as 18½" total height for the 13⅝" (12" Series 900) Single Gates, only 30" for the same size in Double Gates (with two compartments unitized into one body).

And no extra space is needed at the top or ends to allow space for changing rams!

Extra Value #2

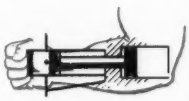
EASY RAM CHANGES

As wells are drilled rams must be changed frequently to meet requirements of varying pipe sizes. In Shaffer Hydraulic Gates you simply open two doors in the side of the body, slide out the ram assembly, change rams, replace the assembly and bolt the doors shut. Closing the doors automatically aligns the rams within the body. And complete ram changes can be made with equal ease whether the pipe is in or out of the hole!

What's more, there's no need to dismantle the upper compartment to change rams in the lower one — or vice versa. Rams in either compartment are changed with equal ease!

Extra Value #3

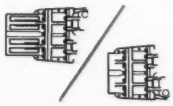
POSITIVE DIRECT DRIVE



In Shaffer Hydraulic Gates there are no yokes or complicated secondary hook-ups between rams and operating cylinders. For positive action, fewest parts, simplest maintenance, the hydraulic cylinders are directly behind the rams — on the same shaft. And note how all operating parts are completely enclosed within the gate body, protected from corrosion or damage.

Extra Value #4

RISING or NON-RISING SHAFTS



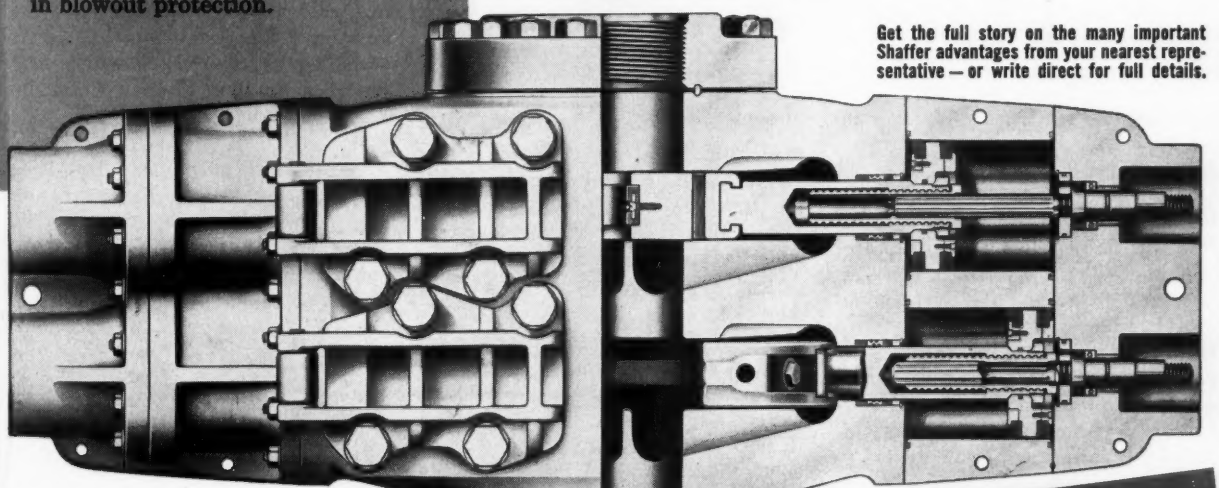
Some operators prefer a non-rising locking shaft for the greater compactness it makes possible. Others prefer a rising shaft for its quick indication of ram position. Take your choice — Shaffer, and only Shaffer — provides whichever design you prefer. And whether the shaft is rising or non-rising, built-in body extensions protect the shafts against damage in all positions!

Extra Value #5

MAXIMUM VERSATILITY

Shaffer provides a choice of either Double or Single Hydraulic Gates, whichever best meets your requirements. Rams and most other parts are interchangeable, size for size, between Single and Double Gates, assuring maximum adaptability to your particular needs — at minimum inventory and maintenance costs.

Get the full story on the many important Shaffer advantages from your nearest representative — or write direct for full details.



...Plus other extra values

such as *Self-Draining Compartment Bottoms* that automatically drain mud and sand accumulations back into the well . . . *Completely Enclosed Design*, with no moving parts exposed where they can become wedged or damaged by timbers falling into the cellar — or corroded by salt muds or chemicals . . . and *Field-Proven Dependability* backed by over three decades of pressure control leadership and advancement.

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With Drilling Contractors

Clyde Hall Drilling Company of Bakersfield has a contract rig working for Richfield Oil Corporation's Weyerhauser No. 1 exploratory venture on Section 31-10n-8w in the Grays Bay area, Wahaiakiakum County, Washington. Three miles south and west of Aberdeen in the same state, Harvey Davis and Robert H. Thompson Drilling Company, Bakersfield, is putting down a test well for California Washington Petroleum Corporation of Los Angeles. H. G. Pennington is drilling superintendent, and Dean Dyer, toolpusher. California Washington Petroleum hold some 1400 acres in Grays Harbor County. Not only is the state of Washington the setting for new leasing but Oregon as well. Present activity appears to center in southern Lincoln County and southwestern Benton County southward through the hills and dales of Lane County into the northwestern part of Douglas County and extending almost to Roseburg on the south, the Pacific Ocean on the west and close to Eugene on the east. Participants in the leasing play include General Petroleum Corporation, Ohio Oil Company, Mohawk Oil Company and Sinclair Oil & Gas Company. Coastal Drilling Company of Bakersfield has a contract job going for the latter in Lane County. With many California contractors and oil companies casting a speculative eye toward oil prospects in the Pacific Northwest of interest is a report on recent developments in eastern Oregon and western Idaho. H. K. Riddle of Albuquerque is understood to have put down four wells in the area and at present is drilling a fifth, with gas showings encountered of a promising hue. The area straddles the Oregon-Idaho state line and geographically is known as the Snake River Basin. One of the Riddle wells particularly is credited with showing gas in quantity at a drill site across the state line near Payette, Idaho. Southeast of Prineville in Crook County, Oregon, Thomas P. Pike Drilling Company of Los Angeles is doing the chores for a Standard of California explorer.

Brown Drilling Company of Long Beach has distributed profit sharing checks to employees for the first quarter of the current year. This is the eighth year the company has shared its profits with its employees. It has been pointed out by Brown officials that profit sharing is made possible by the loyalty, industry and ability of every member of the organization. Team work rather than individual effort was cited as another factor assuring success of the company.

On the personal side of the contract drilling firm, E. C. (Ned) Brown has returned to headquarters from a trip to New York, South America and other far away places.

Several members of the Brown staff in Australia have returned home for a vacation. They include H. C. (Torchy) Burnside, toolpusher; Roy Dennis, Wallie Eike, Ernie Lay and Sam Ramsey, drillers; and Dick Raines and Lee White, derrickman and welder, respectively. These men have already served approximately two years in Australia.

Allen Grafton, toolpusher on Brown rig No. 9, who joined the company last March, is not only an expert oil man but also a qualified flyer. He learned all there was to know about flying in 1942 and holds a commercial pilot's license.

A large and representative attendance of contractors is expected to be at the American Association of Oilwell Drilling Contractors' 15th annual meeting at Houston, September 26-28. Speakers will include, AAODC President Chet Whaley, J. U. Teague, H. J. Chavanne, J. K. Butler, Morris McDannald, Guy B. White, Earle C. Hellums, and Frank S. Carothers.

Tine Gaiser, who formerly operated the Tine Gaiser Drilling & Production Service, has reported organization of the Gaiser Drilling Company. Gaiser is president, Ferne T. Gaiser, vice president, L. G. Childers, vice president and superintendent, and Glenn T. Meredith, secretary-treasurer. Headquarters of the new company are on State road and north of Pierce road in Bakersfield.

M. J. Stansbury and B. J. Stansbury, Bakersfield drilling contractors are among Kern County oil men who use their own planes in flying to their respective operations in California and other parts of the country. The Stansbury interests some weeks ago clicked with a new discovery in Bent County, Colorado.

Casey & Montgomery has been assigned contract to drill Cleveland Petroleum Company's Edison No. 5 on Section 17-30s-29e in the Edison field. A Jeppi sand development well, geology and engineering is in the hands of Lewis & Ganong.

Newton Drilling Company is the contractor on Edwin W. Pauley's Eckhardt No. 1 exploratory well on Section 15-15s-17e at Raisin City, Fresno County.

The Texas Company's Di Giorgio No. C-1 wildcat on Section 11-31s-29e at Mountain View will be put down by B. J. & M. Drilling Company.

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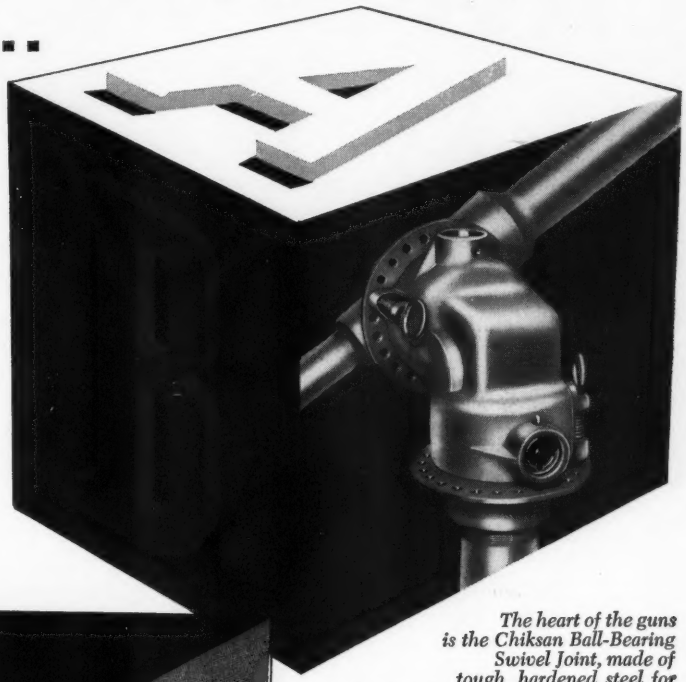
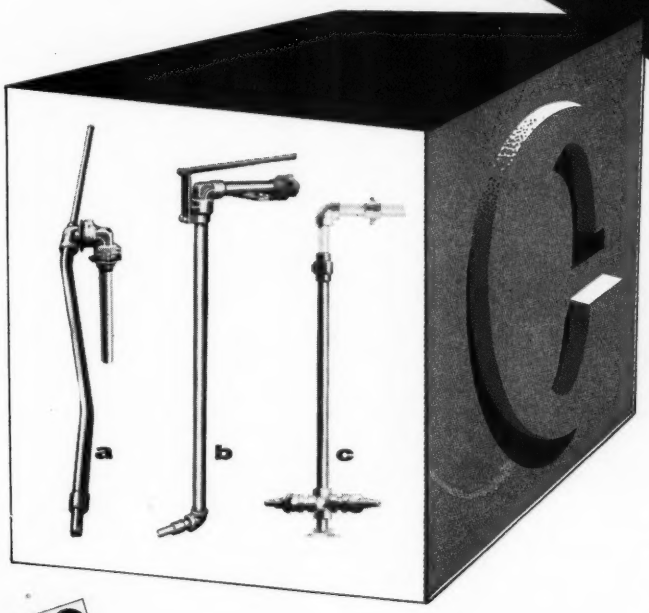
Chiksan mud guns provide complete safety, flexibility and economy in any oil drilling operation. Three types of guns—non-spin, bottom, and spinner—are manufactured from a simple design with turning taking place on double rows of steel balls in flame hardened races. Requires no tightening or adjustment. Flow is unrestricted and pressure drop is kept to a minimum. Each Chiksan mud gun is equipped with interchangeable nozzle tips of hardened steel. For dependable, rugged, long lasting mud guns specify Chiksan, the standard of the industry.



The heart of the guns is the Chiksan Ball-Bearing Swivel Joint, made of tough, hardened steel for long life and trouble-free maintenance.



a NON-SPIN
MUD MIXING GUN—The Chiksan Non-Spin Mud Gun illustrated at left can't spin because centrifugal force is neutralized by the offset in the barrel of the gun. Perforated flanges and locking pins permit locking the gun in any desired position.

b BOTTOM TYPE
MUD MIXING GUN—The Chiksan Bottom Type Mud Gun is designed for use where large size metal tanks are employed as mud pits. It is simple in construction; easy to install, and easy to operate.

c SPINNER TYPE
MUD MIXING GUN—The Chiksan Spinner Type Mud Gun is designed for use in tanks where the utmost in constant agitation is desired. The nozzles are set at an angle and the pressure in the line imparts a spinning motion which is accommodated by a style No. 20 Chiksan High Pressure Swivel Joint. Furnished in any desired length as specified on order.

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Ball-Bearing Swivel Joints

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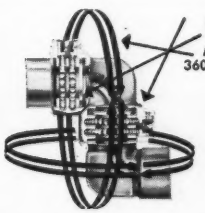

CHIKSAN Ball Bearing Swivel Joints are THE NEW TOOL of Modern Industry with full 360° rotation in 1, 2, and 3 planes. Over 1,000 different types, styles, and sizes have been developed for pressures and services from 28" vacuum to 15,000 psi and for temperature ranges from minus 70° to a plus 500° F. with packing materials for each specific service.

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Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Canada

Two Canadian oil firms have combined to begin the commercial extraction of oil from the Athabasca tar sands. The sands which outcrop along a 100 miles of the Athabasca river and its tributaries in northeastern Alberta have long intrigued oil men. Gordon Coulson, of Can-Amera Oil Sands Development Co., and inventor of a centrifugal process which separates the oil from sands, has secured the cooperation of Royalite Oil Co. in the erection of extraction plants and pipeline facilities.

The gummy oil sands hold an estimated 100,000,000 barrels per square mile. In the aggregate they hold an estimated reserve from 100 billion to 300 billion barrels. Can-Amera, which holds a provincial license on 6000 acres along the river, conducted a test run of the Coulson process in 1954, which is reported as successful in separating the oil at a cost which will make it feasible to produce commercially.

Although Can-Amera and Royalite made no announcements on cost, Canadian estimates place a $60,000,000 price tag on it. The Coulson centrifugal process does not call for a large central plant. Small compact units are planned to move from site to site. The process which, in rough outline, spins the oil from the sands, is reported to make a 90 per cent recovery.

The oil will be carried by pipeline to Edmonton. The possibilities of these tar sands have excited speculation and research for years. The Alberta government has carried forward an extensive program. The first hurdle, successful extraction seems on the verge of being passed. There remain others, however, before the oil can take its place in the normal channels of the oil world. The Athabasca oil contains five per cent sulphur, which may mean that the sands will also be a great sulphur reserve, but the sulphur will present problems to the refiners who undertake to stock with Athabasca crude. Present also in the recovered oil are such heavy minerals as silver, nickel and vanadium.

Three pipelines are importuning the Alberta provincial government to be chosen as the crude carrier from the newly discovered Westward Ho and Sundre productive areas in southeastern Alberta. Pembina Pipe Lines Inc. wants government permission to extend its lines southeastward from Pembina to bring the crude to Edmonton through the Pembina field. Rangeland Pipeline Co. would like permission to build into the Rimbey area to make connection with a proposed Texaco Exploration Co. line for movement into Edmonton. Cremona Pipeline Co. would like to build a line into the refineries at Calgary.

Throughput on the Trans-Mountain pipeline is expected to reach 100,000 barrels per day by the end of this year. The increase to this figure will come with the completion of the extension to the Shell Oil Co. refinery at Anacortes, Wash. The first half profit for this great pipeline, which moves crude out of Alberta across the Rocky Mountain

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cordillera into the petroleum consuming areas along the Pacific Ocean has been listed at $1,998,327.

Montana

A flow of 386 barrels oil per day has been gauged for the Atlantic Refining Co. Wolf Springs wildcat, Yellowstone County. This discovery, one of the most important of the drilling year, made the production in the Amsden dolomite. The hole was taken to total depth 8440 feet in the Cambrian but there were no significant shows below the Amsden dolomite. The locale is 24 miles southwest of the Northwest Sumatra field, the most actively drilled in central Montana. There the Amsden is a substantial producer. The discovery is also on the line of a proposed pipeline from Northwest Sumatra to the refineries at Billings. The discovery was a very rank wildcat whose recovery has prompted a leasing play through central Montana.

Recoveries of oil and gas in the Dakota and the Lakota in the Montana portion of the Big Horn Basin have been made. Gulf Oil Corp. made the recoveries at their Roscoe area, Carbon County wildcat. The Lakota yielded heavy black oil, heavily gas cut. The recovery has added significance to the position of the Cretaceous age in this basin, long famous as an oil basin but with most of the fame built on oil traps in the Permian, Pennsylvanian and Mississippian ages.

The lease play in Montana has shifted from the disturbed belt along the eastward mountain front in north central Montana to central Montana. The most active recent lessee of federal lands has been the Murphy Corp. of Eldorado, Ark.

A rank wildcat to test to the Cambrian will be drilled in Broadwater County. Eddie Fisher, Colorado independent, has undertaken the venture at No. 1 Prescott. It will test a 20,000 acre block 34 miles southeast of the state capital at Helena.

The first Carter County wildcat to test below the Cretaceous will be drilled by Union Oil Co. The No. 1 Govt. Lowe is scheduled to go to "the basement." It is reported the first of a series.

North Dakota

The third wildcat discovery for the year has been marked up. Texas Co. has had a flow of oil at 384 barrels per day from the Mission Canyon at No. 1 Helle, McKenzie County. There was no water in the recovery. Texas Co. is continuing the tests. The discovery site is seven miles southeast of the Keene field and eight miles southwest of the Sanish field.

Calvert Drilling Co. has announced a 10-hole series of strat tests through Bruke and Ward Counties. The acreage will be farmed out by Stanolind Oil and Gas Co. Calvert will drill with one rig on the entire series.

Lion Oil Co. will drill another Bottineau county wildcat. The No. 1 Einar, is six miles south of Lion's recent discovery at North Souris. It will test the Lodgepole at 3300 feet.

Percentage of oil has increased during swabbing at an apparent Bottineau County discovery. Amerada Petroleum Corp. has swabbed 33 barrels of oil and 24 barrels of water at No. 1 Beauchamp. Earlier swabs had recovered as much as 70 per cent water. The discovery is one of several recent ones which have revived interest in the eastern margins of the Williston Basin.

Nebraska

The Ohio Oil Co., whose discovery at Sidney in 1949 ushered in the boom in the Denver Julesburg Basin, is drilling two tests to the granite. No. 1 Bremer is drilling in Chase County with the basement expected at 5500 feet. In the Ashhash area of Garden County No. 1 Ferrell is drilling below 3000 feet. Ohio has done slim hole work through this area as well as to the eastward but has not disclosed details.

Wyoming

The Franklin County Coal Co. has sold the Plains Pipeline to Garfield and Pasternak, Denver independent operators. The line, controlled by the Murchison interests of Dallas, Tex., moves the high gravity Weston county crude from the Clareton fields to major pipeline connections at Lance Creek. The capacity is 30,000 barrels per day. Currently about 20,000 barrels are moving daily. Beyond saying the purchase price was "several million" the purchasers did not disclose the price.

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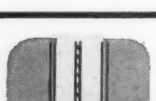

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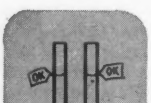

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BAKER BRIDGE PLUG

ternak have announced their purchase of 39 wells in the Clareton fields from Continental Oil Co. The production totals about 600 barrels per day. Continental is one of the very few major oil companies which took part in the heavy drilling play in southwestern Weston County two years ago. Irving Pasternak was one of the most active of the independents who sponsored the heavy concentration of drilling, the most heavy in Rocky Mountain history, along the 40-mile Clareton trend.

The gas possibilities of the Cretaceous age have again been indicated in the Big Horn Basin. Mobil Producing Co. has recovered gas from the Dakota at No. T 25-8-P, Heart Mountain Park County. The operator is coring ahead with the Tensleep the ultimate objective. At the end of the drill stem test in the Dakota the flow was gauged at 2,800,000 cubic feet per day. The Dakota has produced gas in three other fields in the Big Horn Basin but is not a significant oil producer there, although Mobil drilled a Dakota oil discovery in the basin earlier in the year.

A second area of production in the Wyoming portion of the Denver Julesburg Basin has been opened. Hiawatha Oil and Gas Co. has taken over the Charles C. Gross Jr. No. 1 Gross Wilkinson, Pinebluffs, Laramie County, to complete it as a J sand discovery. It pumped 220 barrels of oil per day from an interval 7367-74 in this oldest of the two prominent producing horizons in the basin.

Exploration in the Wyoming portion of the basin, which is the most actively drilled in the Rocky Mountains at the present time, had been disappointing until this past January when the field at Torrington in Goshen County was discovered.

The confirmation to the Pinebluff discovery has flowed at the rate of 15 barrels per hour. It was also drilled by Hiawatha northeast of the discovery. West of the discovery Gulf Oil Corp. has set pipe to test a saturated section in the J sand.

Houston Oil Co. has completed its second test on the Clark Ranch Unit. No. 2 Unit pumped 430 barrels per hour from the Curtis sand, a new pay in the field and a new pay in Natrona County. The No. 1 was completed earlier this year as a Tensleep discovery. No. 3 has gone on the apparent discovery list as a gas discovery in the Frontier.

South Dakota

Construction of a natural gasoline plant for the Clareton fields, Weston County has begun. Natural Gas Products Co., a California firm, A. A. Carrey, president, will be the plant's builder. The company has worked closely with James P. Sloss, Denver independent and chairman of the Clareton operators committee to line up gas contracts.

Gas now flared in the field will be processed in the plant. The liquid hydrocarbons will be moved to Newcastle for further processing.

Colorado

The southwestern most discovery in the Denver Julesburg Basin has been completed. At No. 2 Flader, Adams County, Cortez Drilling Co. and Jeff Hawks gauged 100 barrels in 12 hours. Their first and third holes in this immediate area were abandoned. The new field has been named Busy Bee and is 12 miles southwest of production in the leader field.

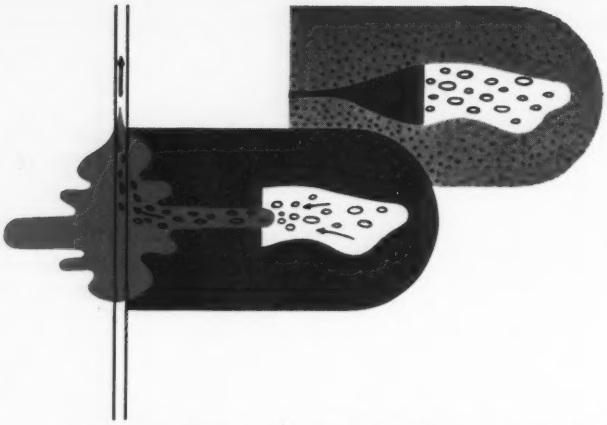
Utah

Gulf Oil Corp. has run production string at a rank gas and distillate discovery in San Juan County. Their No. 1 Coalbed Canyon Unit flowed gas at a rate of 13,900,000 cubic feet per day plus a distillate recovery estimated at 286 barrels per day. No tops have been reported, but it is presumed that the producing horizon is the Paradox, a Pennsylvanian age horizon which is a producer in southeastern Utah. The wildcat is 15 miles southeast of Monticello and 15 miles northwest of gas production at Dove Creek, Montezuma County, Colorado.

Arizona

Arizona can be ready to welcome its second producing well. Humble Oil and Refining Co. has recovered gas and oil at their Boundary Butte wildcat, Apache County. The No. 1 Navajo Tribal flowed gas at a rate of 9,035,000 cubic feet per day and recovered nearly two and one-half barrels of oil in a one hour test. The last reported top is the Paradox 4590 feet. The test is in the Boundary Butte area along the extreme eastern end of Utah-Arizona border.

Long Beach Oil Development's W-98 on Terminal Island with Crawford & Hiles putting down the hole. Left to right: V. L. Kunau, pusher; J. J. Lynn, lead tong; H. A. Ellenburg, pipe racker; Leonard Allen, cathead; R. C. Choate, derrick; C. L. Teeters, driller.



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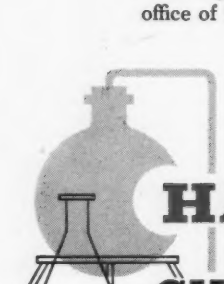

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Field Development

Capistrano Test Location Staked

Continental Oil Company has staked location for a second wildcat test in the San Juan Capistrano area, Orange County. It is designated as Capron No. 1 and some 1650 feet north and 660 feet west from the southeast corner of Section 11-8s-8e.

Aliso Canyon Well Pumping

First reports from the Century Service, Inc., No. 1 test on the Evans lease in Section 23-3n-16w, Los Angeles County, indicate the well was pumping water with a trace of oil from 3137 feet. The drill site is northeast of the Aliso Canyon field.

Poso Creek Wildcat Fails

Having drilled to a depth of 2433 feet in gray sand, Ray W. Stevens & Associates has pulled out of Seale No. 617 test on Section 6-27s-27e in the Poso Creek sector.

Inglewood Field Property Acquired

East Standard Mining Company has announced the acquisition of a sublease on the Logan Goodknight 40-acre parcel in the Inglewood field. The land contains four shallow wells to the Vickers formation around 2000 feet and a project to the Sentous at 9000 feet, or approximately. East Standard announced plans call for deepening and reworking the shallow Vickers wells and also working over the deep test.

Bandini District Activity Increases

Aeco Corporation of Beverly Hills, which during recent months has been actively leasing in many favorable areas in the Los Angeles Basin, announces completion of its Triggs street community lease. The property acquired is north of present production and spread over some 75 acres in the growing Bandini area. More than 300 townlots are embraced in the lease. The company's new ground is also adjacent to the Richfield-Union Pacific ground, where two wells are flowing producers. Aeco's land is entirely framed by leases held by larger companies, it appears. West of Bandini production by approximately 1600 feet, Aeco is represented by a current test known as Connor Community No. 1 on Section 18-2s-12w and near the intersection of Washington boulevard and Dennis street. In the Bandini field, General Exploration is continuing its development program there and recently completed CWOD No. 12 as its 11th producer for 250 barrels of 40 gravity oil a day from 5301-5509 feet. General is operator for a group made up of C. G. Willis, National Oil Company, Christopher Oil Company, Bolsa Chica Oil Corporation and Basin Oil Company.

Wilmington Well Finaled

Hancock Oil Company's 3950-foot redrilled Harbor No. A-5 well in the Wilmington field is in for 280 barrels gross in the first 16 hours, cutting 30 per cent. The well was drilled originally to 4047 feet.

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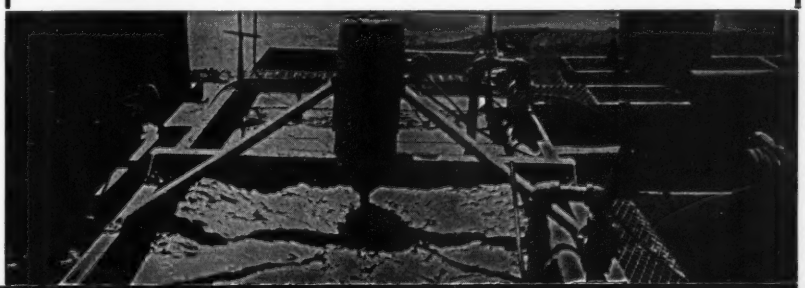

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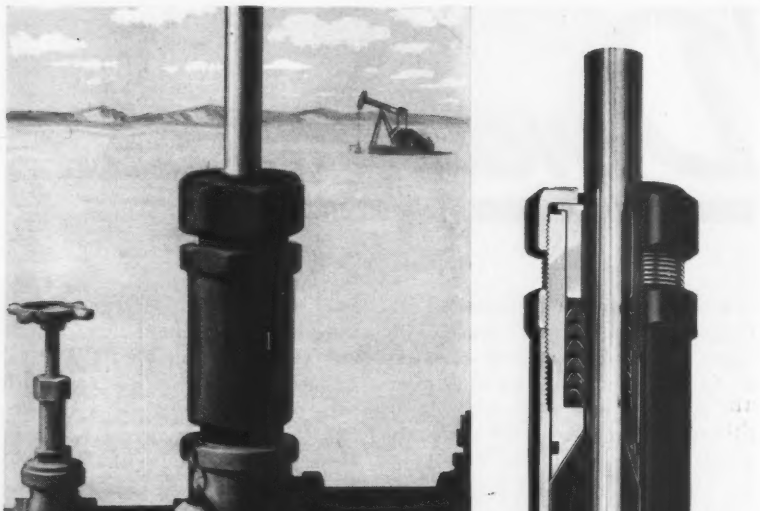

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E-209-55

Tejon-Grapevine Well Completed

The 15th Jewett zone well in the Reserve Oil and Gas Company sector of the Tejon-Grapevine field has been completed by Intex Oil Company. The well is known as Blodget & Crome No. 78 on Section 28-11n-19w and is on the north fringe of the Jewett pool. The well started off at the daily rate of 670 barrels a day from a total depth of 4991 feet. Two miles north of production, Edwin W. Pauley's No. 63-15 wildcat on Section 15-11n-19w is drilling at 6000 feet. It is on a farmout from Reserve. Any mention of the latter recalls that that company reported an increase of 143 per cent in oil production for the three months ended June 30 last, with output totaling 2885 barrels a day against 1187 barrels daily in the corresponding period of 1954.

Montebello Acres Taken

John McKeon, long identified with all branches of the petroleum industry, has leased 150 acres north of the San Gabriel fault at Montebello and is mapping out a drilling job there. Southeast of Montebello, Tide Water Associated Oil Company's McGinley No. 1 test on Section 6-2s-11w is down 6500 feet.

Hidden Valley Wildcat Working

After being idle since last May, the Morgan Brown, Inc., McMahan No. 1 wildcat test on Section 29-1n-19w at Hidden Valley is in the process of going deeper from 6514 feet. Fowler Drilling Company is in charge of deepening operations.

Allensworth Slated For Additional Tests

Geochemical Surveys, which recently abandoned its Covey No. 77-9 on Section 9-24s-24e at Allensworth in Tulare County, may shortly launch another test there. Location of the duster was about seven miles east of the Trico gas field, with total depth 3800 feet. In the Exeter area, the John F. Wilcox, Operator, Orton No. 1 wildcat on Section 34-19s-26e was last reported digging under 1000 feet.

Moorpark Test Location Staked

Humble Oil & Refining is busy with preparative work on its Ed H. Williams No. B1 wildcat test on Section 4-2n-19w at Moorpark in Ventura County. Some months ago an exploratory well taken down in the area under the banner of Bob Lytle found some oil.

Seal Beach Lands Shifted

The U. S. Interior Department announces transfer to its authority of oil and gas deposits in 950 acres in Naval Ammunition Depot at Seal Beach. The Navy asked for the change so that the Bureau of Land Management can lease the ground for oil and gas production and thereby prevent loss to the Government through the draining of formations by privately-owned wells immediately adjoining the depot. In the Seal Beach field, Hancock Oil's Alamitos No. 8 on Section 13-5s-12w is drilling at 1500 feet. No. 7 on the section was brought in from 8425 feet the other week for 400 barrels of net 31 gravity oil a day. The Monterey-Texaco combine is busy with two wells in the field.

Oak Canyon Well Working

On Section 32-5n-17w in the Oak Canyon field, Western Gulf Oil Company's USL No. G-14 well on Section 32-5n-17w keeps drilling steadily ahead at a depth last reported near 2500 feet. U. S. Drilling Company is in charge.

Dominguez Test Quits At 5849 Ft.

Near the intersection of Main and 208th streets in the Dominguez area of Los Angeles County and on Section 6-4s-13w, Marcus-Golberg's Marigold-Del Amo No. 1 test has been abandoned at 5850 feet.

Orange County Wildcat Listed

Superior Oil Company is ready to begin drilling its Strader No. 75-24 wildcat on Section 24-5s-11w and north of the Huntington Beach field proper in Orange County. The drill site is close to where Heil and Cannery avenues cross one another and about a mile from Humble Oil & Refining Company's Clara J. Isenor No. 1, which was put down to 8911 feet and abandoned in April, 1949. Douglas Oil Company's Douglas Oil No. 1, a 5000-foot dual zone test of the tidelands on Section 11-6s-11w, is drilling steadily ahead not far above objective depth. Indicating considerable and new offshore drilling, Monterey, Humble and Seaboard jointly were high bidders with a cash bonus of $3,333,533 for rights to 1355 acres off Huntington Beach between the Santa Ana River and highway 99. The same group offered a bid of $1,333,533 for another 1280 acres immediately beyond the first parcel. For a small tract of 640 acres off the Beach City a combination of Hancock, Signal and Richfield offered a $516,776 bonus. The State Lands Commission is requiring all companies to pay a fixed royalty on a sliding scale, ranging from 16 2/3 to as high as 60 per cent.

Santa Fe Springs Scene of Wildcat

All set to drill is General Petroleum Corporation's Santa Fe No. 243 on Section 5-3s-11w in the Santa Fe Springs area. Designed as a deep test, the project is no great distance from the corner of Central avenue and Anaheim-Telegraph road. Just as a reminder the Santa Fe Springs field was opened 35 years ago and still is an important factor production-wise in the Los Angeles Basin.

Meadowlark Test Drills

Hedges Oil Company has resumed drilling with its Kettler No. 1 wildcat on Section 22-5s-11w in the Meadowlark sector, Orange County, and at last reports was moving ahead below 4400 feet. The company is headed by Orris R. Hedges, a partner in the recent discovery at Vallecitos in San Benito County. The Kettler project is one and one-half miles north of Huntington Beach production and a short distance from Shell Oil Company's Kettler No. 1, a 9260-foot duster.

Progress in Side Wall Coring

(Continued from Page 5)

commercial core laboratories are now equipped for making such analyses.

Pinpoint accuracy in coring depths is achieved. The cores are related exactly to logging depths. When completion operations are later related to these same log depths the advantage of this depth control is quite apparent.

Recently there has been a trend toward greater use of side-wall coring in lithological and paleontological studies. This coring, of course, is most efficiently done on the basis of log showings after the well has been drilled to total depth.

In view of the economy, efficiency, and wide applicability of the modern side-wall coring tools, many wells, both field development and wildcat, are completed with the entire coring program performed by this method. Certainly when coupled with a proper logging program the side-wall coring method merits consideration in planning a drilling program.

***District Manager—Taft Location.**
****Field Engineer—Taft Location.**

Contract Awarded to Gill

Mannix Gill Limited of Calgary, Alberta has been awarded a $2,000,000 contract for the design, engineering, and construction of gasoline plant facilities in the Settler Gas Conservation area, Alberta, Canada for the Canadian Gulf Oil Company.

The project consists of two Compression-Refrigeration plants, Fractionating, Gas Desulfurization, Dehydration, and Water Treating Facilities.

Mannix Gill Limited is an affiliate of the J. B. Gill Company of Long Beach, California and Tulsa, Oklahoma.

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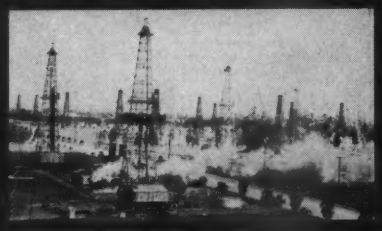
1 The Tretolite Company of California is located in California and specializes in the manufacture of demulsifiers designed especially to combat emulsion problems peculiar to California crude oils and oil field waters.



2 Tretolite Company of California field service engineers are stationed in every California oil producing area. Many of them have served the same fields for many years—they know the field conditions and are familiar with the treating equipment, much of which has been installed on their recommendation.

3 The Tretolite Company of California carries on a continuing research and development program, primarily designed to develop better demulsifying agents to correct emulsion problems inherent to California fields.

4 Nearly every chemical demulsifying plant in California was designed by Tretolite engineers, or with their cooperation. Whenever a new field has been developed, Tretolite field service engineers have been "on the job," ready to help meet emergencies, ready to recommend the treating procedures most appropriate for the new field.

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Poso Creek Test Abandoned

A depth of 2150 feet wrote finish to Jack Wood's USL Hall-Wood No. 1 test on Section 20-27s-27e in the Mount Poso sector of Kern County. In the West Devils Den area, Cliff E. Zillgitt has suspended at 1215 feet his Cottonwood No. 2-1 wildcat on Section 2-25s-17e.

Lerdo Wildcat Well Abandoned

Having explored to a total depth of 8515 feet and with little encountered in the way of encouragement, J. G. Dyer has abandoned his J. G. Dyer et al Lerdo No. 1 wildcat test on Section 15-28s-26e, Kern County. The drill site was about 10 miles northwest of Bakersfield along highway 99 and near the wartime Minter field of aviation renown. Location was also a short distance southeast of one Standard duster and north of another abandonment made by the same company. These earlier tests went to 9100 and 7544 feet, respectively. Dyer, a Denver operator, is a recent newcomer to California.

Rosedale Test Moving Deeper

Approximately one-half mile south of wells producing in the Rosedale field, Atlantic Oil Company is under way with its Rosedale No. 1 wildcat on Section 26-29s-26e. Target depth probably will be in the neighborhood of 7000 feet, with a company rig doing the work. Humble Oil & Refining Company opened the field four years ago with completion of a well to the Stevens sand zone. The derrick stands slightly less than a mile north of Moriqui Exploration Company's Ricard Brothers No. 17-16, which came to naught a year ago around 8700 feet.

Fresno County Leases Acquired

Southern California Petroleum Corporation and its associates, St. Anthony Oil Corporation, Climax Molybdenum Company and American Metals Company, have purchased a lease on more than 1900 acres in Fresno County. The block was leased by Frank Grant and Hans and Robert Sumpf and is composed of parcels in Sections 14, 22 through 27, and 35-19s-16e. SCPC will act as operator for the group. In the Raisin City area, Edwin W. Pauley is ready to drill his Eckhardt No. 1, a designated 5200-foot project on Section 14-15s-17e. Northwest of Kettleman Hills on Section 14-21s-16e, Artnell Oil & Gas Company is preparing to drill its Honolulu-Kreyenhagen No. 81-X-14. Drilling has been suspended at 9433 feet with the M. I. LeBow, Operator, No. 44-26 wildcat on Section 26-20s-16e in the Guijarral Hills. C. & T. Transportation Company's Roberts No. 2 test on Section 10-22s-14e at Jacalitos Creek has been abandoned at 2414 feet. The same goes for the Lloyd A. Harnish, Operator, Plaugher No. 73-30-H on Section 30-21s-16e at Guijarral Hills, but at 9083 feet. Formation test at 11,064-11,146 feet with The Texas Company's Spieler No. 1 on Section 26-20s-16e pointed to oil sand overly tight to produce. Drilling is proceeding ahead.

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Drillpro Unitized Exploration Rig

Drilling & Production Co. recently introduced a new Cardwell Trailerig—first in California—to its contract drilling operations in the San Joaquin Valley.

Loaded with unique features, the heavy-duty rig which moves with light weight portability, is rated for a depth of 6,000 feet, with four and one-half inch drill pipe or 10,000 feet with four-inch drill tubing. With an eye to operators' interest in lower costs, Drillpro's new outfit was specifically designed to cut operating, moving and labor costs.

Since the largest single item in daily rig costs is the wages paid crews that operate the rig, this company has used the latest engineering applications to reduce the work load and have found it practical to operate with a 3 man crew. Considerable saving has been effected.

Principal components are a standard Cardwell Trailerig drawworks powered by two Murphy 122s, which develop 420 horsepower hoisting and 325 horsepower pumping, and a Gardner Denver 7¼x14" FK-FXK Duplex Power pump, driven through drawworks power take-off and unitized with suction pit and fill pit. A Gardner Denver 5x10" trailer-mounted mud mixing pump driven by a Cummins HR 400 is furnished at the operator's request.

The drawworks assembly is built into a bridge-type trailer frame complete with 104-foot Model 201 Cardwell mast. The telescoping mast has 96 feet clear above the table—allowing mouse hole connections. Rated hook load is 200,000 pounds.

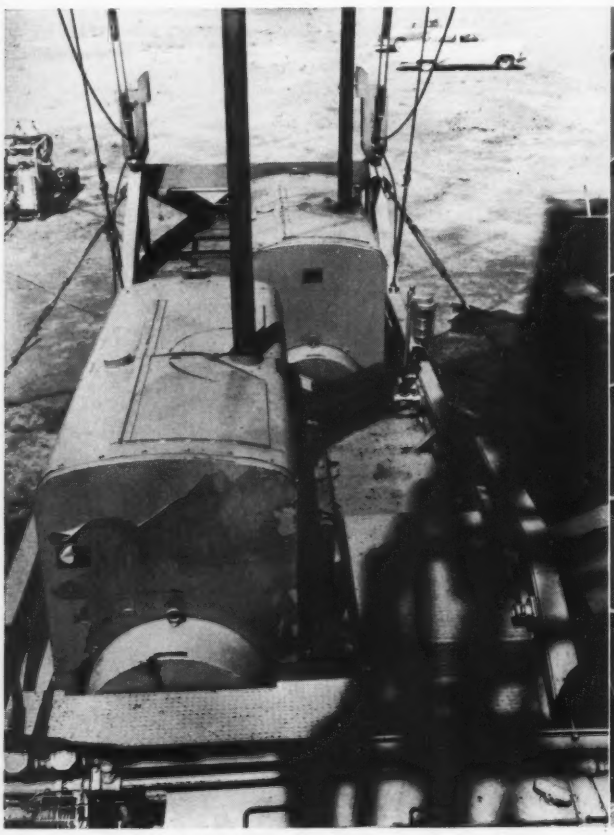
The manufacturer provides a lateral support outrigger for lateral stability of the mast to minimize the use of guy lines. This outrigger is effective in winds up to 40 miles per hour without front dead men.

Features of the Cardwell Trailerig drawworks are double drums incorporated in the trailer, all air clutches, six hoisting speeds, three rotating speeds, two engine compound, 44x9½" water-circulated brakes, and 17¼x45¾" grooved drum. A 22" Hydromatic can be furnished at the operator's request.

The Trailerig utilizes a 7-foot 7-inch Cardwell subbase, unitized with a 150-barrel mud tank, storage bin and tool bin. Distance from ground to kelly bushing is 10 feet.

An International UD 9 drives the 25-kilowatt, 3-phase generator. Like the Murphy 122s, the International engine operates on diesel fuel.

Other items of equipment include an Ideal FE 17½"-44" Oilbath rotary table; an Ideal Type 430E 140 hook traveling block with 4-30" sheaves grooved for 1" line; an Ideal Type N-35 swivel rated for 150 tons; a Rumba 4860-B2 shaker unitized with the mud tank; Varco Type 4 KRB kelly bushing; BJ Type C tongs, BJ weldless links; Kelco air slips and Hillman-Kelley Hydraulic Make-up tongs. Drill pipe is 4½" Hughes Extra Hole 18° taper integral joint 16.6 pounds.



Compact power plant

Left to right: Jim Armstrong, manager, Drilling and Production Co.; Lee J. Laird, California-Arizona representative for Cardwell; Toolpusher Claude Meares.

Only Shell Premium with TCP* gives you the full benefits of high octane gasoline. TCP overcomes the engine deposits which cause pre-firing... a major cause of power loss. Only Shell Premium Gasoline has both TCP and high octane.

*Shell's Trademark for this unique gasoline additive developed by Shell Research. Patent applied for.

The 200-barrel mud system includes a 24-foot sand ditch, 170-barrel water storage, and 30-barrel oil-for-mud-treating storage.

Now for the unique features of the Drillpro outfit.

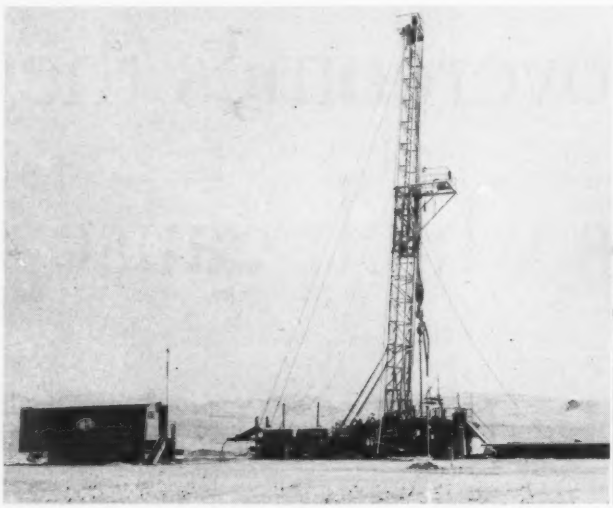
One of the most interesting is a special all-purpose trailer built to Drillpro's specifications by Hopper Machine Works, Inc. The all-purpose trailer incorporates an 8x18' doghouse, supply and generator room, 2,000-gallon fuel tank, five-hour centrifugal water pump, and 170-barrel water tank in one legal, permanently-mounted trailer. Equipment incorporated in the trailer usually takes a good part of three loads. By putting everything together in one all-purpose trailer, Drillpro has made a three to one reduction which should pay off on moves.

Unique features of the rig itself include unitization of the drawworks with the trailer frame; power take-off for the pump which has allowed concentration of power in one package and given savings in the initial investment; and engine drive through hydraulic couplings, which has the effect of absorbing shock and making for a smoother, quieter drilling operation.

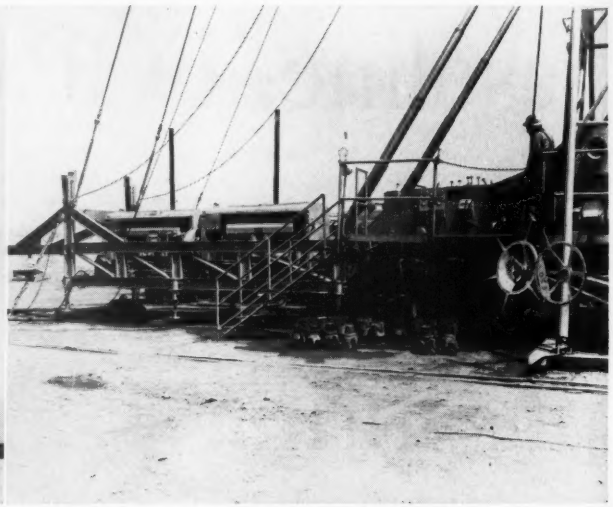
Unique Mud System . . .

Another feature is the unitization of the 200-barrel mud storage tank with the subbase, which incorporates shaker, tool bin storage and sub storage space. This saves one load and has the further effect of securing the foundation of the rig with the weight of 200 barrels of mud. It also cuts down on the noise factor, possibly making for better working conditions for the crew.

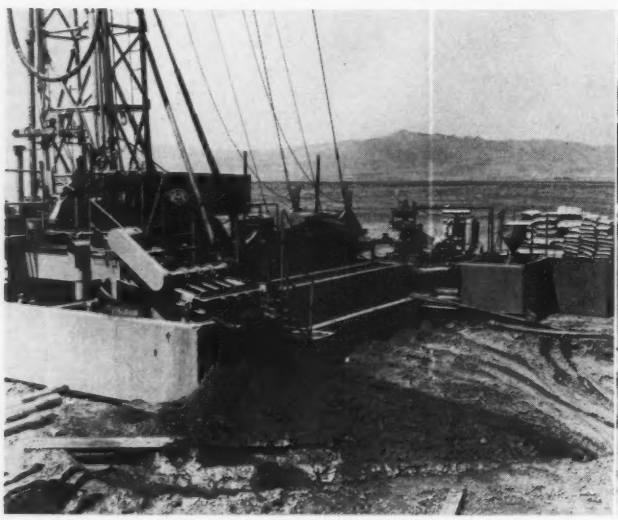
In the mud system, an elaborate sand settling device is beneficial in mitigating pump and drill string wear and is also advantageous to an operator in oil base completion programs. All solids are settled out of the mud instead of being pumped down the hole to bridge formations. This is particularly important in development of low-pressure, depleted reservoirs. Dry mud storage has been designed at truck level height so that truck drivers can unload



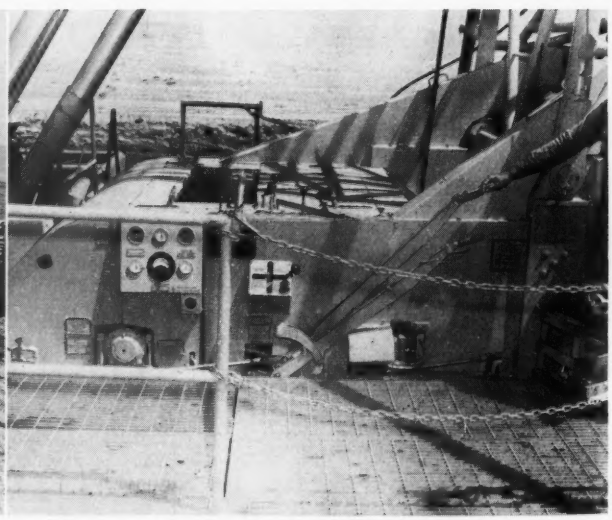
Drillpro's Cardwell Trailerig. On location in McLure Valley



Drawworks assembly combined with bridge-type trailer frame



Mud system and view of rig floor



Control console

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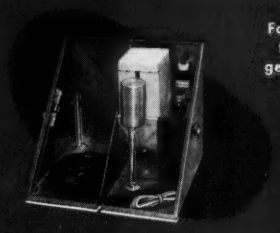
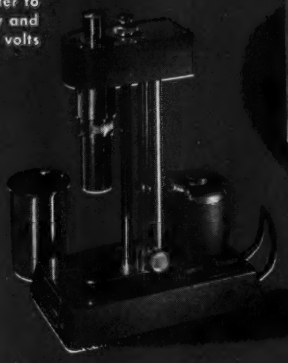
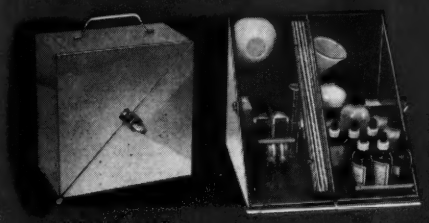


Retort kit to test oil, water and solids content of drilling mud

Fann V-G Meter to test viscosity and gels; 6 or 110 volts



Baroid Roller Oven to simulate well conditions of temperature and agitation



Lighter, handier cases for chloride, alkalinity, and water hardness test kits

New equipment . . . improved cabinets . . . better performance! When it comes to mud testing, you won't find equipment easier to use, lighter in weight, or more accurate than Baroid's. Conforms to all API specifications for testing mud density, viscosity, filtration, pH, or other mud properties. Write today for complete data on Baroid equipment.

New portable pH meter: the smallest size yet!

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- Stainless Steel Case for Mud Balances ☐
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- Filtratesters ☐
- Sand Content Kits of Metal and Polyethylene ☐
- Oil and Water Retort ☐
- Portable Mixers ☐
- Chloride Test Kit ☐
- Alkalinity Test Kit ☐
- Water Hardness Kit ☐
- Filtrate Test Kit ☐
- Polyethylene Reagent Bottles ☐

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mud at the location with a dolly without help from the drilling crew.

As an extra, Drillpro has a small standby pump—a 5x10" Gardner Denver, which may be used on either of the company's two contract rigs depending on where it is needed most as a mud-mixing pump. It is mounted on a light army surplus trailer.

Hoisting horsepower—420 horsepower—is unique for such a portable rig. Pumping horsepower is 325—another interesting sidelight to the heavy-duty power of the compact rig.

At present, Drilling & Production Co. is working toward a three-man operation by addition of air slips and hydraulic tongs. The rig has been used for three holes—two at Tejon Ranch and a third in McLure Valley — during which Drillpro has drilled 10,000 feet of hole with three-man crews. Success of the three-man operation will cut costs of labor on the new rig.

On a highway move, the rig is moved in seven contract loads, representing a considerable saving over the usual 11 loads common to standard rigs in its depth category.

Loads are as follows . . .

1) All-purpose trailer — 35x8x13'4" (height)
2) Pipe basket—1,000 feet of drill pipe, 200 feet of drill collars, integral walk, ramp, stairway and tailboard with one set of rails.
3) and 4) Cardwell Trailerig—two loads on a highway move; one load from location to location on the same lease.
5) Mud pump and mud storage rack.
6) Unitized subbase and mud storage and shaker tank.
7) Sand trap and miscellaneous materials.

For each 2,000 feet of pipe, it is necessary to add one load during the drilling of a well. Pipe is moved by Drillpro's own truck while the well is in progress.

With acquisition of the new rig, Drilling & Production Co. is now operating two rigs in contract drilling operations in California. Rigs are operated out of the firm's Bakersfield office at 2907 L Street. Jim Armstrong is manager for the company's contract drilling work. In addition to its contract work, Drilling & Production Co. also is a producer in its own right. Last winter the firm scored with one of the best discoveries of the year by proving up the JV (Jewett) pool at Tejon.

Contracts Let for Southern Pacific Pipe Lines, Inc.

Contract for construction of the Colton, Calif., Pumping Station has been let to J. H. Pomeroy and Co., Inc., of San Francisco and Los Angeles. Work started August 15 on a 60-acre site bounded by Riverside Dr., Slover Ave. and Santa Ana St., approximately one and one-half miles west of the center of town and one-half mile south of the SP Railroad main line. The contract includes laying of pipe within the station area, erection of controls, maintenance and repairs buildings and installation of pumps, motors and controls machinery. This station will pump toward Phoenix, Ariz., with three centrifugal pumps, each driven by a 900-horsepower electric motor. Colton will be one of three pumping points on the 846-mile pipe line; construction already is in progress on pumping stations at El Paso, Texas, and Watson, Calif.

Contract for laying of pipe in Schedule 7, a 42-mile section of 16-inch pipe between Colton and La Habra, Calif., has been let to J. E. Young Pipeline Contractor, Inc., of Los Angeles. Bids will be asked on the final section, Schedule 8, La Habra to Watson. Pipe now in the ground exceeds 200 miles.

Other contracts just awarded: Erection of maintenance building at Lordsburg, N.M., installation of scraper traps in the main line at Lordsburg and Deming, N.M., and erection of concrete foundations for three 67,000-barrel storage tanks at the Phoenix terminal site, all to Vinson Construction Co. of Phoenix. Construction of 1020-foot span to carry the pipe line across the San Pedro River at Benson, Ariz., to Ashton Building Co. of Tucson.

U. C. Announces Oil Courses

Divisions of geology and engineering in University of California Extension will offer four evening courses in petroleum studies this fall.

Paul W. Morgal, project engineer with Union Oil Company will conduct a course in Petroleum Refinery Equipment and Processes which opens at the Extension-Los Angeles Center, 813 South Hill Street, Monday evening, September 12 at 7:00 p.m. and Max Taves, reservoir engineer with Richfield Oil Corporation meets a class in Petroleum Drilling and Production Methods the following evening at the same hour and location.

At U.C.L.A. Harold H. Sullwold, Jr. meets a class in Petroleum Geology at 7:00 p.m. on September 21 in room 3656 in the Geology Building for the first of 18 weekly sessions, and Charles A. Lee, instructor in the Physical Science Department at Santa Monica City College meets a class in Mineralogy and Petrology in room 2276 of the same building on September 15 at 7:00 p.m. Mr. Lee will also hold duplicate sessions of the same course at the Center and at the University's campus in Riverside.

Bulletins listing complete information concerning these and other new fall courses in Engineering and Mathematics in Southern California Extension Los Angeles 14 (TUcker 6123) and Los Angeles 24, (BRadshaw 26161).

Race Track Hill Wildcat Drilling

On a 130-acre lease in the Race Track Hill area, Bolsa Chica Oil Corporation's Haddad-Butler No. 1 wildcat continues to drill steadily ahead under 3500 feet. Located on Section 3-30s-29e, Bolsa shares interest in the play with Sunland Refining Corporation, and E. A. Bender of Bakersfield. The project will go to approximately 5000 feet for a look at the Jewett sand.

Semitropic Venture Quits at 5712 Feet

T & T Oil Company's T & T Community No. 1 exploratory well on Section 9-27s-23e found nothing of commercial interest to 5712 feet and has been relegated to history as a dry hole. The Semitropic field was opened by Standard in 1935 with a dry gas producer from the Pliocene.

Largest Atom Smasher In Industry Purchased by Shell Development Company

A three-million-volt particle accelerator — the most powerful radiation source available to industry—has been purchased for the Emeryville, Calif., research laboratory of Shell Development Company, Harold Gershinowitz, president, announced recently.

The unit, a Van de Graaff accelerator — sometimes called an "atom smasher" because it was originally used for nuclear research—will be the first of its size in the petroleum industry. It is being built by High Voltage Engineering Corporation, Cambridge, Mass., and will be installed in June, 1956.

Shell scientists will use the accelerator in studying the effects of radiation on fuels, lubricants, plastics and other oil-derived products.

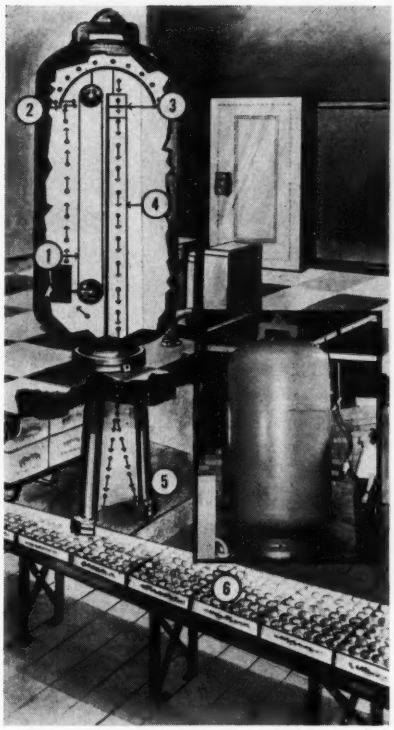
The machine produces a radiation field of extreme intensity, one several hundred times that of the most powerful radioactive cobalt source now used in industry.

Radiation produced by the accelerator is in the form of a high-intensity beam of electrons traveling at almost the speed of light. This beam is pinpointed to bombard a product, causing changes in its physical characteristics. It makes a plastic harder, increases its resistance to solvents and enables it to hold its shape at high temperatures.

With this powerful electron beam, Shell scientists hope to learn more about changes that take place in matter exposed to high energy radiation. Such information could lead to creation of entirely new products.

The Van de Graaff accelerator, of which Shell will now own two, has two additional advantages over radioactive sources for industrial use: First, when turned off it presents no radiation hazard, whereas a cobalt source is always hazardous; and second, the accelerator is easily adapted to continuous production techniques such as conveyor belt treatment systems.

Shell's other accelerator, a two-million-volt machine, was installed in the company's Houston laboratory in September, 1954. Researchers use this machine in "aging" rocks atomically—by bombarding them with protons. The machine can reproduce in one week the amount of radioactivity to which a rock may have been exposed during ten million years in nature. Such studies can help scientists tell the age of rock formations and thus provide new clues in the search for oil.



A two-story arrangement will be needed for the three million volt atom smasher—most powerful radiation source available to industry—when it is installed in Shell Development Company's Emeryville, Calif., laboratory in June, 1956. The voltage generating column, which produces a high-intensity beam of electrons, will be on the upper floor, and material being exposed to radiation will be passed through the beam on the floor below.

The photo inset shows the actual housing for the voltage generating column, and the diagram explains how it works. An electric charge sprayed on a fast-moving belt (1) is carried to the top of the column and transferred to a terminal (2), resulting in a great voltage difference between the upper and lower ends of the machine. Charged particles leave the terminal through a heated cathode (3) and hurtle downward along the only possible escape route, the high vacuum tube (4), where they are accelerated to almost the speed of light. A funnel-like attachment (5) directs the particles precisely on to material being irradiated, which is passed through the beam on a conveyor belt (6).

The Houston machine is housed in a room with 2½" thick concrete walls, and an electrically operated nine-ton sliding door. A one-ton paraffin "shield" surrounds the target material. When the machine is in operation, no one is in the room. Closed circuit television shows what is going on inside. The most modern safety devices and techniques are used. They are so effective that insurance companies do not classify the work as hazardous.

Mrs. Jane Scott, a recent newcomer to Shell Oil Company's accounting department at Los Angeles, worked in Casper, Wyoming, before her transfer to the Pacific Coast.

Wedding bells rang September 3 for Judith Lynn Hedges, daughter of Los Angeles Oil Man Orris R. Hedges and Mrs. Hedges. The lucky bridegroom was Lt. Lawrence R. Gray of Burns, Oregon.

Leslie M. Peters of Berkeley has rounded out 25 years of service with Shell Development Company's Emeryville research center, where he is assistant head of the experimental plants department.

Bob Lytle, who recently returned from a three months tour abroad and who divides his time between oil and the turf, announces receipt from the Jockey Club of confirmation of his choice of the name "Translation" for his chestnut colt which was foaled and raised at Northridge Farms. The colt is a full brother to Interpretation.

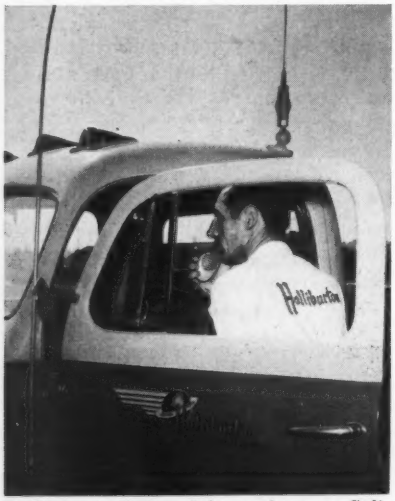
WINS SAFETY AWARD—The highest recognition obtainable for an outstanding safety record was made to General Petroleum Corporation yesterday by the National Safety Council with the presentation to president Robert L. Minckler, (right) of the Award of Honor. The plaque was presented by vice-president Max A. Koffman of the safety group in recognition of General Petroleum's unparalleled record in the seven western states. Mobilgas company set the best safety record of any oil producing and marketing firm on the Pacific Coast.

Halliburton Increases Range Of Radio Controlled Units

Completion of a new 150′ transmitting tower at Montalvo increases the operating range of Halliburton Oil Well Cementing Company's California fleet of 60 radio controlled cars and pick-ups. These mobile units, part of the world's largest private, radio controlled fleet, have been operating in California fields for over a year.

With transmitting stations at strategic locations, radio control of needed equipment now extends from the Los Angeles Basin to Santa Maria on the Coast, and from Bakersfield to Coalinga and Fresno in the San Joaquin Valley.

Halliburton transmitters are frequently pressed into duty to relay oil company messages as well as to maintain efficient customer service as required. With radio controlled units, faster service becomes a reality.



Radio controlled mobile equipment, California Division of Halliburton Oil Well Cementing Company.

New transmitting tower at Halliburton Oil Well Cementing Company field camp, Montalvo, California.

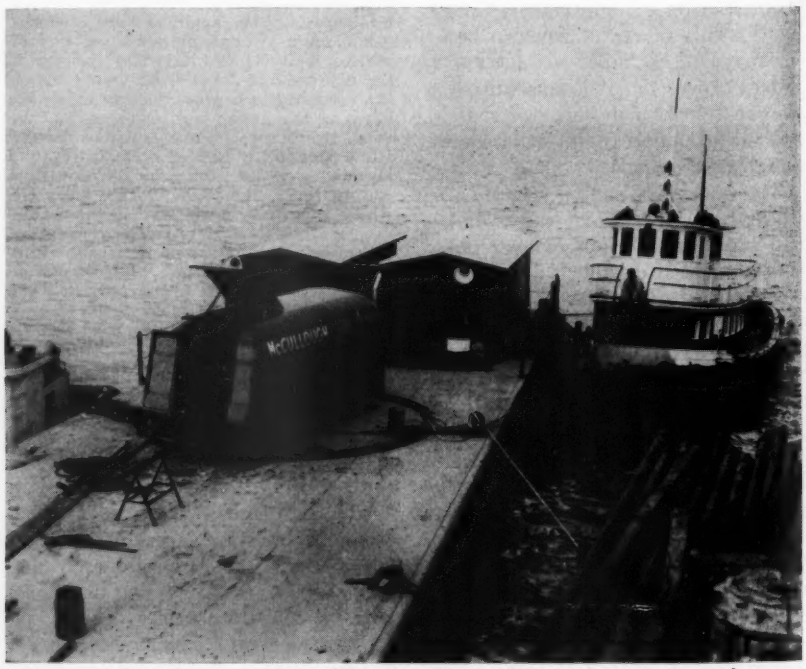
McCullough Completes Marine Service

The McCullough Tool Company has recently completed a versatile marine wire line service unit to meet the requirements of the rapidly expanding offshore drilling program.

Designed by McCullough's Engineering Department and fabricated in their Houston shops, the new unit revolves on a circular track mounted on a barge. Being able to turn a full 360 degrees, the unit can efficiently service a well from any desired angle. The service unit has 20,000 feet of wire line and includes electronic equipment and measuring devices to perform all McCullough wire line services and McCullough Radioactive Logging.

Diesel powered operation is an important safety factor, eliminating the hazards of gasoline on the barge. The diesel generator furnishes electric power for all electronic equipment as well as power for the houses, tool units and flood lights.

One of the water tight houses on the barge is living quarters for the crew. Air conditioned, it has bunks, a kitchen and television for the comfort of the service crew. The other house includes a tool room, work



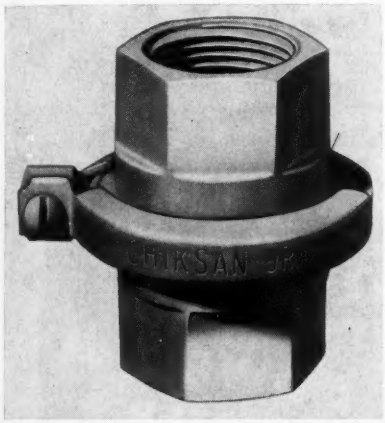
McCullough Tool Company Marine Wire Line Service Unit ready to go to work on an off-shore job.

shop and radiation logging instrument room.

The barge itself is 100 feet long and 26 feet wide with ample working space for any type job. A McCullough tug tows the barge to the rig location and picks the barge up again after the job has been completed.

Chiksan Company Adds Two New Low Cost Swivel Joints

Chiksan Company, Brea, California, is marketing two new swivel joints in ½" and ¾" sizes. One is a permanent clamp design for use on air, fuel, hydraulic and other lines where free swiveling action is required. The other is a controlled torque design for use on coolant lines and other flexible lines which are required to lock into position.



The principal advantage of the permanent clamp type, called Chiksan Junior Joint #1, is that it prevents hose kinking and thus increases hose life. The adjustable controlled torque type, called Chiksan Junior Joint #2, offers the advantage of quick positioning and locking of lines. The extreme low cost of both types makes economical their disposal and replacement when service life is ended.

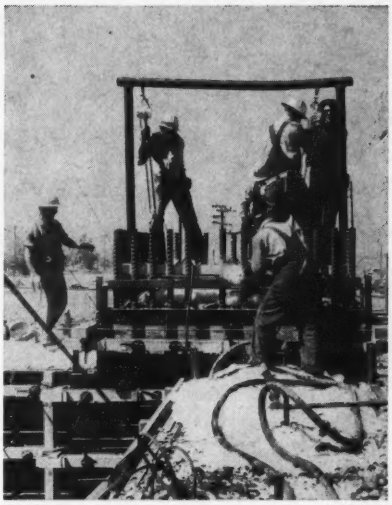
Both are cast from Zamak #5, an alloy with excellent resistance to corrosion while combining strength and retention of dimensions under impact.

"O" rings in these joints are of synthetic type which will handle aromatic fluids, cutting oils, soluble oils, lubricating oils, gasoline, kerosene, diesel oils, water, and air. Special "O" rings are available for synthetic hydraulic fluids.

The clamps on both the permanent and the controlled torque design joints are made of cadmium plated steel for rust resistance.

Sutter County Wildcats Going

Two wildcat wells have been set in motion in Sutter County. They are Richard S. Rheem's Moroni No. 1 on Section 34-15n-1e in the Grimes area, and Sunray Mid-Continent Oil Company's Lienert No. 55-29 on Section 29-12n-4e in the Nicolaus sector.



Artificial snow is used to cool high strength cement for foundation of world's largest fluid coking plant at Tide Water Associated Oil Company's Avon Flying A Refinery near San Francisco.

Ortega Anticline Wildcat Test Fails

Ohio Oil Company's IMR-Government No. 1 on Section 30-6n-23w in the Ortega Anticline area near Cherry Creek Canyon, Ventura County, has been abandoned at 6677 feet. The drill site was between four and five miles southwest of Standard's Hattie Russell No. 1 project, which was written off some years ago at 9750 feet.

Atlantic Oil Company's Terminal No. 8 being drilled on Terminal Island by a company rig. Left to right: H. W. Lewis, driller; Carl Faulkner, lead tong; R. M. Webb, cathead; J. D. Canny, racker; D. R. Stringer, derrick.

THIS LAUGH OFF!!

When a woman goes on a drastic diet she has one or both of two objectives in mind—to retain her girlish figure, or her boyish husband.

If you would speak for all to hear,
Avoid the flowing cup,
For after too much bottled cheer
Your tang gets tongueled up.

"I'm anxious to make this shot, that's my mother-in-law on the clubhouse porch."

"Don't be a fool, you could never hit her at two hundred yards!"

It makes a difference whether you're saving for a rainy day or a wet night.

Did you know they're making soap out of gasoline now? Imagine having Ethyl in your bath!!!

Experience may not be worth what it costs, but that's what we have to pay for it.

Teacher: "Your reports should be written in such a manner that even the most ignorant may understand it."

Student: "Well, sir, what part is it you don't understand?"

"How much liquor can you hold?"

"Any given amount!"

"Mummy," asked the little boy, "how long is it since daddy died?"

"He didn't die, darling," his mother sighed, "he joined a golf club."

Oscar came to the city and got a job as janitor in a girl's dormitory. As the housemother handed him the pass key to every room in the house, the question of wages presented itself.

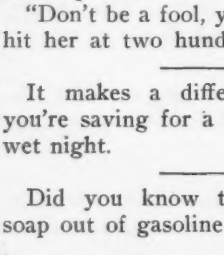
"Would ten dollars a week be all right with you?" she asked timidly.

Oscar was silent for a moment. "I don't know if I can pay that much or not lady," he said finally.

A young coed brought charges against an elderly professor and had him sentenced to jail for a long term. As he was led away, a friend approached him.

"I know you are innocent. Why did you plead guilty?"

"Well," admitted the professor, "the complaint was so flattering I just couldn't resist."



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